

## NEWS SUMMARY

### GENERAL BUSINESS

**Bologna rain crash kills 45**

Forty-five people were killed and more than 100 injured when a Venice-Rome express collided with a detailed passenger train near Bologna. Police fear several more victims could be killed under the wreckage.

Corriere Della Sera newspaper called for decisive action to ensure that rail tracks are adequately protected from landslides.

In Sicily, four people were reported killed, dozens injured and hundreds made homeless by a series of powerful earthquakes shook Sicily and northern Italy early yesterday.

**Israel peace proposals**

Israeli Cabinet Ministers have agreed that the United Nations Security Council should serve as a basis for negotiations with all neighbouring countries.

Mr. Naor, Cabinet Secretary, said that peace proposals already agreed for the West Bank continued with the requirements of a Resolution, which calls for Israeli withdrawal from occupied territories. Page 2

**Budget vote**

Government is increasingly confident of winning the first Commons vote on the Budget tonight, although Mr. John Major, Liberal economic spokesman, stressed yesterday that other tax reductions would be needed through Back Page

**hutto talks**

General Zia-ul-Haq left Pakistan yesterday for Saudi Arabia where King Khalid is expected to ask for clemency for Mr. Zia-ul-Haq, the condemned former Pakistan Prime Minister. Page 2

**py inquiry**

Indian Prime Minister Indira Gandhi has pledged a full inquiry into reports that an American nuclear-powered spy device has been lost in the Himalayas and could contaminate the River Ganges. Page 2

**riefly...**

Four workers were killed in an explosion at a gas-oil separator at Abqaiq, Saudi Arabia.

Marriage is to issue a libel writ against the Evening News, alleging that an article gave false and damaging impression of events at the hotel, where the bride and groom were on the eve of their wedding.

An inquiry will open to-day into the death of a youth found hanging in Risley remand centre. Remand Bond £50,000 weekly rise won by bond number 1PB 27780.

More than 150 people were killed when a tornado swept through the Indian state of Orissa.

Iran charged in connection with the disappearance of £100,000 from Banbury Securicor office will appear at North Oxfordshire Magistrates' court to-day.

Robert Peace Prize winners Betty Williams and Mairead Corrigan are to stand down as leaders of the Northern Ireland Peace Movement.

World-wide hunt was on last night for Joyce McKinnay and John May who face charges of kidnapping Mormon missionary Kirk Anderson. They have not been seen since Wednesday.

Organisation of Petroleum Exporting Countries is to hold an extraordinary ministerial meeting in Taef, Saudi Arabia, on May 6.

Parliament is to be asked to approve research to prevent poring. Mr. Robert Aldy, Tory MP, said that loss of sleep for porers' partners threatened health, happiness and work.

**Japan's trade in record surplus**

JAPAN turned in a record balance of trade surplus, last month of \$2,455m. Exports totalled \$3,783m, a rise of 23.9 per cent. on the same month last year, while imports fell 0.9 per cent. to \$1,328m, according to customs trade figures released at the week-end.

INF-based figures will be published to-morrow, which will give a more detailed picture.

The Japanese Ministry of International Trade and Industry has given details of a plan to curb exports during the new fiscal year, with a call to industry to limit exports of cars, steel, TV sets and ships to below last year's levels. Page 2

**U.K. TEXTILE trade**

was nearly in balance with the rest of the world last year, for the first time since 1973. Sales of textiles and clothing were only \$5m. less than imports, after deficits of £143m. and £136m. in 1975 and 1976. Page 4

**OECD shipbuilding working party**

meeting in Paris to-day will consider easier credit terms for ship exports and a plan to draw together developed and underdeveloped countries in the face of the world slump in shipbuilding demand. Back Page

**AN ANGLO-IRISH pact of economic co-operation**, with far-reaching implications for the economic development of Ulster is to be announced shortly. A report setting out areas for joint action is being studied by Mr. Callaghan and the Irish Prime Minister. Back and Page 5

**WELSH Secretary has announced a £12m. package of Government measures to provide jobs in South Wales**, following the closure of steelmaking at Ebbw Vale next month. Page 9

**BL workers seek national action**

**SPEKE shop stewards** are to press TGWU officials for a co-ordinated national programme involving dockers, road hauliers and other groups, to persuade British Leyland to change its decision to close its TR7 assembly plant next month. Back Page

**MR. MOSS EVANS**, leader of the Transport workers' union has said that he wished to see a return to normal wage bargaining, unfettered by Government limits, but that he expected the unions to act moderately. Back Page

**GROWTH of trade unionism** has been the most important achievement of the past four years, Mr. Anthony Wedgwood Benn has said. Back and Page 6

**COMPANIES** receiving aid from the National Enterprise Board should be selected from contributing funds to the Conservative party or to other political pressure groups, a Labour MP has urged.

**PRICES** Secretary is to be asked for a Fair Trading investigation into the operations of Bureaux de Change, which, an MP claims, are offering rates of exchange sometimes 20 per cent. out of line with those quoted by authorised banks.

**BNOC's** Thistle Field has started to supply oil for the first time, with the first tanker load reaching the Conoco refinery on the Humber. More than a third of the oil processed at the refinery comes from the North Sea, and this is expected to double.

**SPILLERS** bakery staff, to be made redundant by the group's decision to cease baking bread, are to try to buy 35 shops in Norfolk and Suffolk from the company. Page 4

## Average earnings limit of 7% is aim in next pay round

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

An increase in average earnings of 7 per cent. should soon emerge as the specific Government objective for the next pay round starting in the summer, and the plan is to enforce it in both the public and private sectors.

The controversial contract clauses, official orders will remain part of the Government's armoury to influence the private sector, and the 7 per cent. earnings guideline—implying a rise of about 5 per cent. in basic wage settlements—has been built into cash limits in the public sector.

Ministers will spell out this new objective shortly in what will amount to a declaration of a "go it alone" policy, rather than wait until near the end of the current pay round.

The 7 per cent. target will be presented as an average, rather than a maximum, to allow flexibility and variations in particular industries. But the same aim has not been achieved in the current round, when the 10 per cent. limit has been treated as a flat-rate increase.

### Agreement

The Government has become reconciled to the almost certain absence of a detailed pay agreement with the TUC. Unlike last year, there will be no attempt to seek a formal deal with the unions, since this would risk a politically damaging rebuff.

Ministers still hope that the TUC will support a continuation of the rule maintaining a 12-month interval between pay settlements and not openly oppose government policy.

This support is likely to be the

Government's main objective in talks with both sides of industry on prices and earnings forecasts. Mr. Denis Healey, the Chancellor, was low key about the pay policy last Tuesday. He did not mention a Phase Four as such.

It is uncertain how the Government will react to union calls for a shorter working week to be allowed for in the policy, though there is likely to be continued scope for self-financing productivity agreements and special commitments made in the current round, like that to the firemen.

Ministers and officials hope that an early and public concentration on the 7 per cent. figure, coupled with exhortation and the occasional use of sanctions, will win widespread acceptance.

The Government is unrepentant about the use of pay sanctions such as the threat of withdrawal of official aid, believing that sanctions against companies last August were an important check at the beginning of the round.

The Government campaign will stress that, by the early summer, retail prices should be rising at an annual rate of 5 per cent., and so acceptance of the official pay target will allow a rise in the standard of living after taking into account tax cuts.

The proposed slow down in the rate of earnings growth from the range of 13 to 14 per cent. in

the current round to 7 per cent. next year, is regarded as unrealistic by many commentators outside Whitehall, who believe that the rate of pay increase will remain in double figures.

The Government, however, bases its forecasts on the achievement of a 7 per cent. earnings rise in 1977-78, with an increase in retail prices of 8 per cent. in the coming year.

### Cash limits

The Government's cash limits in the public sector also reflect these pay assumptions, though the financial year and pay policy year are not coincident and many key public sector settlements come late in the financial year.

Pay rises of between 6 and 10 per cent. have been assumed in fixing the cash limit blocks, with an average towards the upper end of the range.

Michael Blanden writes: The progress of the Government's present pay policy will be illustrated this week with the latest figures for average earnings in the first set of pay statistics to be published after the Budget.

The Government has been able to point out that the large majority of big pay settlements have been within the 10 per cent. guidelines. With the retail price inflation rate now well within single figures, and ex-

Continued on Back Page

## Mugabe seeks Marxist one-party state

BY MARTIN DICKSON IN SALISBURY AND QUENTIN PEEL IN PRETORIA

MR. ROBERT MUGABE, the co-leader of the Patriotic Front, made it clear yesterday that he wanted a one-party Marxist State in Rhodesia.

"We believe sincerely that a multi-party system, unless it is particularly desired by the people, is a luxury in a State."

"We should concentrate on policies aimed at the transformation of society and we believe therefore that to achieve maximum progress we have got to concentrate our energies in one direction, and this one direction can only be brought about by your aligning yourselves as one force with ideological objectives that seek to be attained."

He acknowledged that these objectives were Marxist ones. The Patriotic Front has already committed itself to pre-independence elections and there are indications that Mr. Joshua Nkomo's wing of the alliance would wish to dissociate itself from Mr. Mugabe's remarks.

His statement came as Dr. David Owen, the Foreign Secretary, and Mr. Cyrus Vance, U.S. Secretary of State, prepared to go to Salisbury after talks with Mr. P.K. Botha, the South African Foreign Minister. They aimed at dissuading him from supporting Rhodesia's internal settlement.

Mr. Botha expressed his readiness to continue support for an internationally acceptable settlement in Rhodesia.

While he declined to advise publicly the leaders of the internal settlement regime in Salisbury to agree to attend all-party talks on the country's future, his statement is as positive as expected by the Western envoys. Diplomatic sources in Pretoria see the implication as being that the internal settlement falls short of the necessary international recognition for a peaceful settlement.

The Anglo-American team and the Patriotic Front remain far apart on the most fundamental premise of the Anglo-American plan.

Britain and the U.S. insist on a political balance between all parties to the Rhodesian dispute in the pre-independence arrangements.

In Salisbury the transitional Government—and not Mr. Smith—has selected the nine-man team of three whites and six blacks to meet Dr. Owen and Mr. Vance to-day. Over the week-end, two of Mr. Smith's colleagues in the Government, Bishop Muzorewa and Rev. Sithole, again condemned plans for an all-party conference.

Discussions earlier in Dar-es-Salaam with the Patriotic Front centred on the disposition of political and military power in the transition to independence. The Front conceded that Lord Carver, the British resident commissioner designate, should have

executive power over the police and military, and that there could be a United Nations peace-keeping force during this time.

But these concessions were heavily qualified with conditions that the U.S. and U.K. are most unlikely to meet. These included a demand that the guerrilla forces remained "active" during the transition, and that the governing council should be weighted in favour of the Patriotic Front.

The Front also introduced a major new element, by insisting that its forces should form the basis of the police force. This is well outside the Anglo-American plan.

Unless South Africa can be persuaded to exert pressure on the new Salisbury administration, it is expected that Mr. Smith and the nationalists will once more pour cold water on an all-party gathering.

Michael Holman adds from Lusaka: Mr. Joshua Nkomo, joint leader of the Patriotic Front, said on his return from the talks with Dr. Owen and Mr. Vance in Dar-es-Salaam that "attempts to marry" the Anglo-American settlement terms with the Front's amendments to those proposals were "as difficult as mixing oil and water."

Mr. Nkomo claimed that the Patriotic Front had moved towards the U.S. and U.K. "as far as we could, but the movement was not retrograded."

More Rhodesia news Page 3

## Price Commission expected to sanction bank charge rises

BY MICHAEL BLANDEN

RISES in bank charges are likely to be sanctioned in a major Price Commission report expected to be published this week, but important questions may be raised about the structure of the banks' operations.

The report could bring pressure on the banks over the disclosure of their provisions against bad debts, and could suggest other changes, including possibly the payment of interest on current accounts.

The Commission's examination of the banks has been concerned with the charges they levy on customers for the provision of money transmission services. These cover the handling of cash and cheque transactions and other aspects of the banks' service concerned with the making of payments.

The banks have taken the opportunity to put forward a strong case for higher charges. They have maintained that the rates at present paid by customers fall substantially short in many cases of covering the cost of handling the business, and it is likely that the Commission will accept this point in general.

In conducting its examination the Commission has been drawn into looking at other aspects of the banks' operations as they relate to the charges made for current accounts.

One important point has been the provisions made by the banks against bad debts, which are averaged over a period of years and are kept strictly secret.

The Commission is understood to have regarded these figures as important to its understanding of the structure of charges. But it is believed to have elicited from the banks only a global figure rather than an individual breakdown.

Another issue which will arise is the relationship between interest income and bank charges. Strictly speaking, these are separate points; but the Commission has recognised that a bank may make a useful profit from interest earnings on a customer's account, even if the commission charges made for handling the business do not cover its cost.

The issue was raised in the more limited report published earlier this year after the investigation of increases in charges proposed by Barclays Bank for certain nationalised industries.

In that report, the Commission said specifically that "we reserve to our examination report our conclusions as to whether, in assessing money transmission services, account should also be taken of interest income."

Another specific point which will be covered is the proposal by the banks to make a charge for holding cash on behalf of customers.

This again arose in relation to the Barclays investigation, and the Commission deferred its conclusions to the report on its broader examination because of the wider issues raised.

Rises in bank overdraft rates are likely this week, after the increase in the Bank of England's Minimum Lending Rate from 8 to 7½ per cent. announced in the Budget.

As the money markets fall into line, there will also be continued concern over the performance of the foreign exchange and gilt-edged markets after last week's initial adverse reaction to the Budget measures.

## Italian parties in Moro dilemma

By Dominic J. Coyle and Paul Setts

ROME, April 16

ITALY'S political parties, including the Communists, have been thrown into a state of uncertainty by the ultra-Left Red Brigades' statement that the former Prime Minister, had been found "guilty" by a so-called "people's court" and "sentenced to death."

Leaders of the ruling Christian Democrats and the Communists held emergency meetings here to-day and, although re-assuring that there could be no formal political deal with the terrorists, the emphasis has moved perceptibly towards "using every possibility on humanitarian grounds" to save Sig. Moro's life.

There remain, however, considerable doubts in some Christian Democrat circles as to whether Sig. Moro, the Party president, is still alive. He was kidnapped exactly a month ago in a bloody ambush, in which five policemen died.

He was driving to Parliament to attend a confidence motion concerning a complex deal between his party and the Communists, bringing the latter into the Parliamentary majority for the first time in about 30 years.

The Red Brigades' communiqué, delivered simultaneously in Rome, Milan, Turin and Genoa late last night, said: "The interrogation of Aldo Moro is over. He is obviously guilty and has been sentenced to death."

### Contacts

It did not mention any compromise formula to save his life, although earlier communiques did hint at his possible release in exchange for a number of terrorists on trial or in prison.

The Christian Democrat leadership, supported strongly by the main political parties, have insisted that it will not consider seriously such an exchange, although informal contacts are said to have taken place with the Vatican on such a possibility.

It is understood that details of last night's communiqué were given to Pope Paul, who had earlier made a public plea for the release of Sig. Moro, a personal friend for more than 30 years.

Sig. Giulio Andreotti, the Prime Minister, who attended this morning's meeting of the party leadership, also had a private meeting to-day with Sig. Giovanni Leone, President of the Republic.

## Wall Street merger may be probed

BY JOHN WYLES IN NEW YORK, JOHN WICKS IN ZURICH AND NICHOLAS COLCHESTER IN LONDON

ONE OF the most important mergers yet to have occurred in Wall Street, Merrill Lynch, Pierce, Fenner and Smith's \$50m. cash purchase of White Weld and Company, looks likely to be the target of a Department of Justice Anti-Trust probe.

Announced with a minimum of fuss late on Friday afternoon, the deal will arouse some concern within the securities industry, where Merrill Lynch is already by far the largest U.S. brokerage company, with a capital worth as great as the next four or five largest securities firms combined.

In Europe, the deal will lead to complicated negotiations over the future of Credit Suisse White Weld, a major European investment bank.

Credit Suisse general manager told the Financial Times that the company would not discuss co-operation with Merrill Lynch through Credit Suisse White Weld, but any agreement would depend on Credit Suisse retaining control over CSWW.

Should it prove impossible to reach agreement, Credit Suisse has the option to buy out the former White Weld holding in CSWW of 30 per cent. Credit Suisse already has 47 per cent. of CSWW.

CSWW is itself an estimated \$15m. richer than last year, and the company would not discuss co-operation with Merrill Lynch through Credit Suisse White Weld, but any agreement would depend on Credit Suisse retaining control over CSWW.

Floating in quasi-independence between its Swiss and American backers, it will want to play more than a passive role in determining its future under the new ownership.

Last night, its directors were discussing alternative courses of action. The company is one of the top ten managers in the international capital markets.

Mr. John Craven, the deputy chairman of the CSWW holding company, predicted that the new set-up would be clear within a fortnight.

He explained that since CSWW's 30 per cent. stake in White Weld had been one of the keys to Merrill Lynch's investment, CSWW had been able to assure itself in advance, in consultation with Credit Suisse, that there would be a favourable outcome. "We are sitting comfortably," he said.

Nevertheless, because of the speed with which the Merrill Lynch-White Weld deal had been brought together, it proved impossible to sort out the international consequences in advance.

Mr. Craven suggested that Merrill Lynch's international investment banking operations might now be vested in CSWW. But he added other possibilities that are explained in a separate article on Page 20.

The deal in New York is the latest in a string of mergers forced on Wall Street by poor trading conditions in the equity and fixed income markets, and by the abolition three years ago of fixed commissions on institutional transactions.

The largest marriage so far, between Deutsche Bank and Reynolds Securities, created a new entity at the start of this year, with a capital of around \$150m.

This aroused the interest of the Department of Justice Anti-Trust division, but no action was taken after a close investigation.

In recent years, the Government has not challenged any combination in the U.S. Securities industry, and those involved in recent mergers have argued that neither should it do so since the consolidation within the industry results largely from action inspired by the Congress and the Securities and Exchange Commission to step up competition between brokerage firms.

Fear that its purchase might prove controversial in some quarters may account for the fact that Merrill Lynch has so far given a minimum of public explanation for the White Weld acquisition.

Many of White Weld's 2,000 employees were surprised by the announcement and some may be victims of the consolidation. Friday's terse statement said that most would be expected to continue with Merrill Lynch.

One who is definitely staying on is Mr. Paul Hainbury Jr., chairman of White Weld, who becomes vice chairman of Merrill Lynch, Pierce Fenner and Smith. The White Weld name will not disappear entirely and will be joined to Merrill Lynch's investment banking arm, which has been renamed the Merrill Lynch-White Weld Capital Markets Group.

White Weld was operating 28 domestic and seven overseas sales offices staffed by 500 account executives. These numbers will be a modest addition to Merrill Lynch's 370 offices worldwide and its 6,160 strong retail sales force.

In the past few years, Merrill Lynch has expanded its world investment banking operations and has also created two commercial banks, one based in Panama and the other in London.

The company figures prominently in the international underwriting business. It is the reconciliation of these aims with those of Credit Suisse White Weld and of Credit Suisse itself that is the problem in discussion over the future status of CSWW.

Its present ownership is Credit Suisse 47 per cent., Merrill Lynch 30 per cent., the Ludwig Institute for Cancer Research and those explained in a separate article on Page 20.



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## OVERSEAS NEWS

## Japan's trade surplus at new record

BY CHARLES SMITH, FAR EAST EDITOR TOKYO, April 16.

CUSTOMS clearance trade figures published by the Ministry of International Trade and Industry on Saturday show that Japan ran a record surplus of \$2.455bn. last month. Exports came to \$8,783bn., up 22.9 per cent. from the same month one year ago, while imports totalled \$6,328bn., down 0.9 per cent. The Customs clearance figures include freight and insurance in the value of imports and thus understate the true size of the surplus. IMF-based figures, which give a more accurate picture, are due to be published to-morrow.

Simultaneously, with the publication of the Customs clearance trade figures, the Ministry of International Trade and Industry issued further details of a plan to curb exports during the new Japanese fiscal year. The plan has already been extensively discussed, but MITI's Saturday announcement was slightly more concrete than the previous versions. The Ministry said it would call on industry to cut exports of cars, steel, TV sets, and ships to below last year's level. It also promised "guidance" to a range of other industries to prevent undue export increases. The list includes motor-cycles, copying machines, watches, and cameras. A committee to monitor exports and the effectiveness of MITI's guidance will be established under the Vice-Minister of International Trade and Industry, Mr. Toshinobu Wada.

The MITI plan does not involve the imposition of statutory export controls on industry, although the Government has the power to do this. (The powers were last exercised in 1972.) MITI has consistently opposed the invocation of statutory restraints during discussions on how to curb exports that have been going on for the past month.

A region-by-region breakdown of Japan's foreign trade (on the basis of customs clearance figures) shows that, during the 12 months ending in March, Japan ran a \$8.9bn. trade surplus with the U.S., and a \$4.6bn. surplus with the EEC. Both of these figures were records, as was the overall trade surplus for the period of \$12.9bn. The most rapidly growing Japanese export item during the 12-month period (corresponding to Japan's 1977 fiscal year) was cars. Car exports rose 18.5 per cent. in volume terms to 4.47m. units, and 28 per cent. in Yen terms, to \$3,306bn. Car exports thus overtook steel to become Japan's number one export item.

## Catalan autonomy move

BY DAVID GARDNER

BARCELONA, April 16.

THE MOVE towards restoration of Catalan autonomy has made wide-spread progress with the conclusion of a two-week visit to Madrid of Sr. Josep Tarradellas, president of the Generalitat. The Generalitat is Catalonia's traditional Government and was re-established by Royal decree last September 29, following negotiations between Sr. Tarradellas and the Government, shortly after the June general elections. The object of Sr. Tarradellas's visit was to speed up the transfer of administrative power to the autonomous Government, after six months devoted mainly to discussion of the Generalitat's internal workings. In this latter debate, Sr. Tarradellas appears to have won grudging acceptance for his view of the Generalitat as an essentially presidential rather than consultative power.

## Greek Cypriots call for unity

Greek Cypriot leaders have moved to prevent a split within their community, especially among the 200,000 refugees, in the face of the new Turkish proposals which reportedly allow for some of the refugees to return to their homes.

Their call follows reports in opposition newspapers that the Turkish offer should not be rejected since it would permit up to 70,000 of the Greek Cypriot refugees to go back to their homes, especially around the Famagusta area. Both the Government and the Archbishop described the reports as false and misleading and said they were aimed at causing a rift within the refugees and confusion within the community.

## Ethiopian tank force

Ethiopia has moved two large tank columns into areas bordering Eritrea in what guerrilla sources believe to be the first moves in a major Soviet and Cuban-backed attempt by Ethiopia to retake Eritrea. Alan Darby reports from Khartoum. Some 5,000 Ethiopian troops with about 120 Soviet and Cuban advisers and 70 Soviet-built tanks arrived in Makelle, capital of Tigre province which borders Eritrea on April 12, according to the Tigrean Popular Liberation Front in Khartoum. A force of similar strength has reportedly reached Gondar, capital of Bergegnir province, said the TPLF spokesman. Both forces came overland from Addis Ababa. The guerrillas expect the Ethiopians to move the tank columns north into Eritrea before the rains begin in mid-June.

## Low Soweto turnout

A Government "new deal" election in the black township of Soweto this week-end drew only 6 per cent. of the electorate to the polls, according to voting figures. Reuter reports from Johannesburg. The low turnout was expected to encourage militant black politicians who had scorned the ballot. It was held to choose a new local council for Soweto where more than 500 people died in an upheaval of black protest in 1976.

## Irish layoffs feared

Some Irish companies are on the point of laying off workers because of the effects of the telecommunications dispute, now in its 11th week, our Dublin correspondent writes. Particularly badly hit are firms specialising in exports, who have found themselves virtually cut off from their customers.

## NEWS ANALYSIS—MERRILL LYNCH AND WHITE WELD

## Wall Street's merger wave reaches Europe

BY NICHOLAS COLCHESTER IN LONDON AND JOHN WYLES IN NEW YORK

MERRILL Lynch's purchase of White Weld is the latest in a merger wave which has swept Wall Street for more than a year. This consolidation, which has brought together firms such as Dean Witter and Reynolds Securities, Kuhn Loeb and Lehman Brothers, Loeb Rhoades and Hornblower Weeks, Noyes and Trask, must have been a prime factor in persuading White Weld that its survival in a business dominated by more highly capitalised and diversified firms could be steadily more difficult.

Increasingly, it has become the conventional wisdom on Wall Street that the future may only be secured by access to large sums of capital to finance securities underwriting and trading which should be allied to as large as possible a retail distribution network.

It is no accident that the company which best fits this model is Merrill Lynch Pierce Fenner and Smith. With \$845.5m. of shareholders' equity it has nearly four times more capital

than the industry's number two, Salomon Brothers, 269 offices in the U.S., more than 6,000 retail salesmen and an increasingly important international business in brokerage and investment banking which last year accounted for 9.4 per cent. of total revenues and 10.1 per cent. of net income.

Two and a-half years ago White Weld attempted to broaden its traditional underwriting and investment banking base through the purchase of a retail brokerage firm, G. H. Walker Laird and Co. White Weld's first acquisition in 79 years, G. H. Walker furnished the old Wall Street firm with a new president and chief operating officer, Mr. Frederick S. Womham. Insiders suspected that this new approach was not going too well and Mr. Womham's resignation last November, without public explanation, confirmed many in their view that White Weld was still looking for a new role. It is thought that White Weld was losing the race for big corporate clients to the capital rich crowd of Morgan Tandy, Merrill Lynch, Goldman

Sachs and Salomon Brothers, in the international banking field. A number of possibilities now present themselves. Merrill Lynch might hand over the whole of its overseas investment banking operation to CSWW—White Weld's European operation was one of the pioneers in the Eurobond market in the 1960s and two years later managed the first issue of Eurobond Certificates of Deposit in Citicorp.

More International Financial and Company News Page 35

White Weld's European operation was one of the pioneers in the Eurobond market in the 1960s and two years later managed the first issue of Eurobond Certificates of Deposit in Citicorp.

Its eminence in the international bond market was reinforced in 1974 when it acquired Credit Suisse as a backer. The big Swiss bank had itself been planning a major expansion in international investment banking but felt compromised by a 13 per cent. holding in U.S. bonds. So it made this were the case CSWW might well want to buy an investment bank on Wall Street to restore operation as the vehicle for its U.S. connections. Happily own offensive.

The combination of its expertise, the Swiss bank's place in the U.S. market, and White Weld's American connections have enabled CSWW to stay high in the Eurobond underwriting league table in the face of the challenge of the commercial banks. In 1977 it took second place only to Deutsche Bank.

## India opens new plant for N-fuel

By D. P. Kumar

NEW DELHI, April 16.

INDIA'S NUCLEAR fuel reprocessing plant at Tarapur, where the country already has two atomic power reactors, is complete and is already reprocessing spent fuel to recover plutonium.

This significant development was announced casually in the annual report of the Department of Atomic Energy released on Saturday. It comes in the midst of a conflict between India and the U.S. which is now delaying the supply of enriched uranium.

The U.S. Government is insisting on India signing the Nuclear Non-proliferation Treaty before it can resume supply of enriched uranium for the Tarapur plant, but Mr. Morarji Desai, the Indian Premier, has declined to sign it until all the nuclear nations renounce the use of atomic weapons and destroy the existing nuclear stockpile.

The reprocessing plant, which was completed nearly a year ago, has been uncommissioned until now because the U.S. has refused permission to reprocess spent fuels from the Tarapur plant.

## New chief of staff for Israel

BY L. DANIEL

JERUSALEM, April 16.

ISRAEL'S ELEVENTH Chief of Staff, Lieutenant General Raphael Eitan, formally assumed his post to-day, taking over from Lt. Gen. Mordechai Gur who is leaving active army service after four years in the top post. Gen. Gur was appointed six months after the Yom Kippur war and had the unenviable task of restructuring the top echelons, re-equipping the Israeli army and of eradicating the demoralising after-effects of the Arab surprise attack of October 1973.

The new deputy Chief of Staff will be Major Gen. Yekutiel Adama.

Both the new and the outgoing Chiefs of Staff joined the "Palmach"—the fighting arm of the Hagana—before the State of Israel was established. Both have distinguished service records, having played a prominent part in all campaigns. But they are very different personalities. General Gur, soft-spoken and highly articulate, likes writing children's books as a hobby, and intends to return to university for further study after a short lecturing tour in the U.S.

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## Iran resumes oil sales talks

BY ANDREW WHITLEY

TEHRAN, April 16.

TALKS on a new long term relationship between Iran and its major oil customers, the 14-member Western consortium led by British Petroleum, have resumed in Tehran amid indications that agreement may be near.

Negotiations were adjourned for a month over the Easter and which undoubtedly reflect Iranian new year holidays, after thinking, are cautiously optimistic progress was reported.

There is tacit recognition that Iran is bargaining at an unfavourable time when soft market conditions are expected to persist for many months. This is illustrated by the disappointing export figures for the first quarter of 1978, which are running below official projections at an average of 4.8m. b/d.

Unconfirmed reports say the six-man consortium team, led by a managing director of BP, Mr. John Sutcliffe, is prepared to stay on in Tehran until a final outcome. Local press reports, for a month over the Easter and which undoubtedly reflect Iranian new year holidays, after thinking, are cautiously optimistic progress was reported.

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## OVERSEAS NEWS

THE ANGLO-AMERICAN MISSION TO RHODESIA

## Searching for compromise

BY TONY HAWKINS IN SALISBURY

ON THE face of it, the mission to Salisbury today of British Foreign Secretary David Owen and U.S. Secretary of State Cyrus Vance seems doomed to failure. The two foreign ministers would like the signatories of the March 3 Salisbury agreement to attend an all-party conference on the Anglo-American proposal published last September. Yet in the past 24 hours both Bishop Abel Muzorewa and Rev. Ndabaningi Sithole, who, with Mr. Ian Smith and Chief Chirau are members of Rhodesia's ruling interim Executive Council, have again turned down these plans.

Rev. Sithole told a rally at the north-eastern town of Sinoida on Saturday that an all-party conference was "anathema". He said he did not think the British or the Americans understood Rhodesia's position. "We signed it with our burning souls and can never unsign it," he said. Bishop Muzorewa said in an interview that Dr. Owen and Mr. Vance would find that Rhodesia was "stubborn, firm and uncompromising". The Salisbury agreement was a fact of life, he said.

This tough talk from the domestic nationalist leaders contrasts with the silence of Mr. Smith's Rhodesian Front. Mr. Smith has said very little about the Owen-Vance visit other than to warn at a private meeting last Thursday that the two ministers were not coming to Salisbury to recognise the domestic agreement but to try and impose the Anglo-American plan.

Mr. Smith told his closed door meeting that it was most desirable that Mr. Joshua Nkomo, leader of the external Patriotic Front, returned to Rhodesia and joined in the agreement—though not on a preferential basis but sharing power with the other nationalist leaders. Mr. Sithole and Bishop Muzorewa have made similar appeals, and it is understood that recently a black emissary went to Mr. Nkomo in Lusaka to make precisely this offer.

Mr. Smith's relative silence on the visit has led to some concern, especially in domestic black nationalist circles, that he might contemplate making greater concessions to Mr. Nkomo than the internal leaders believe desirable. Bishop Muzorewa is very confident of being able to win free elections and therefore only too willing to see Mr. Nkomo, who relies almost exclusively on the 14 per cent Ndebele tribal groupings for his support, in a contest genuinely free election.



Rev. Ndabaningi Sithole



Bishop Abel Muzorewa

● The acceptance of Lord Carver, the Resident Commissioner designate, as an independent chairman of the transitional government with no overt executive powers other than in the field of law and order. At the same time, there would be agreement to Mr. Nkomo and Mr. Robert Mugabe joining the existing executive on equal terms with the other four members.

● The appointment of Lt. Gen. Chand, the special UN representative for Rhodesia, as head of the Rhodesian armed forces during the transitional period, allied with an agreed programme of integrating suitable guerrillas within the existing forces.

● A widening of the existing cabinet council to include three Nkomo and, if need be, three Mugabe representatives.

● No presence in any numbers of a UN force, but suitable back-up staff for Lt. Gen. Chand, plus UN or U.K. observers, to ensure fair play at the planned one-man-one-vote elections.

● The Rhodesians would oppose any renegotiation of the plan for a new constitution but they would be willing to submit to certain minor amendments if this was the price that must be paid for Mr. Nkomo's participation.

While such concessions would not be welcomed by the black participants to the Salisbury agreement, they would almost certainly go along with them in return for a cease-fire and Mr. Nkomo's return.

However, observers here believe that these concessions are most unlikely to be regarded as an adequate basis for Anglo-American acceptance of the structure of the internal plan. But they might yet be regarded as a basis for the transitional government to send its delegation to a proposed all-party conference.

The transitional Government—and not Mr. Smith himself—has selected the nine-man delegation that will take part in the Owen-Vance talks tomorrow. Reflecting the multi-racial character of the transitional administration (which has a black majority) there will be six black and three white members. Mr. Smith will be accompanied by his Foreign Minister Mr. Pieter Van Der Byl and his Finance Minister, Mr. David Smith.

The composition of this delegation suggests that the transitional Government will insist on attending any proposed all-party conference as a single team and not as individuals.

## WORLD TRADE NEWS

## Dutch plea for better export finance

BY CHARLES BATCHELOR

AMSTERDAM, April 16.

MINOR ADJUSTMENTS in Holland's range of export facilities could greatly increase their effectiveness, according to a major export financing bank. This could be done without provoking counter measures from other trading nations and without weakening the commercial principles underpinning export aid, the Export Financierings Mij (EFM) claimed.

Despite EEC consensus on a uniform approach to export financing some countries, particularly the U.K. and France, are flexible in their interpretation of these agreements, Mr. W. J. Ford, chief director of the bank, said. Also the German Laender Governments also do not hold strictly to agreements made by the Federal Government.

Other exporting nations, he claimed, get around the gentleman's agreement on export credit by granting mixed credits, composed of export credits and development aid. Dutch exporters have been urging their Government to do the same. Holland grant more mixed credits, Dr. Ford said.

Holland has set up a "matching fund" of Fls.100m. to allow Dutch exporters to provide the same financing terms as those foreign exporters who go below the consensus levels. The problem is that by the time a foreign exporter reveals he has won a contract with the help of cheaper financing it is too late for the Dutch exporter to match the terms.

Holland has a facility for granting cheaper loans, the Export Financing Arrangement (EFA) which currently has a ceiling of Fls.324m. These funds, which are provided by Dutch commercial banks, currently carry a 6 per cent rate of interest compared with the 7½ to eight per cent rate on government credits. At present however Holland will not allow export credits which are below the internationally agreed rate so the cheap EFA rate is always increased to the higher government credit level. The link between these two forms of credit should be abolished, allowing Dutch exporters access to the cheaper EFA credits, Dr. Ford said.

An important element of risk insurance is the size of the risk which the exporter carries himself for which there is no international agreement. Countries decide individually on the level and at present it lies between 10-15 per cent in Holland. Dutch exporters find the percentage is sometimes increased if the economy of their export market deteriorates while it is higher for exports to countries with weak economies. In EFA's view the percentage should be reduced for the weaker countries. It points out that for an exporter signing several contracts the cumulative own-risk element may be too great.

The Dutch Government is currently drawing up plans to improve export aid.

## Spain wins Cuban bus order

BY ROBERT GRAHAM

MADRID, April 16.

ENASA, the State-controlled Spanish commercial vehicle and bus manufacturer, has won an order to supply 500 buses to Cuba worth \$18.75m. The order also includes an agreement to supply Spanish technology to the Cubans.

ENASA has already supplied some 4,000 of its Pegasus commercial vehicles to Cuba. The new order is expected to take effect from next year. Although the company in which the state holding company, INI, has a 67 per cent stake, is experiencing considerable difficulties in sustaining sales in the local Spanish market it is doing well in export sales, especially in Latin America.

## World Economic Indicators

INDUSTRIAL PRODUCTION 1970=100

	Mar. 78	Feb. 78	Jan. 78	Mar. 77	% change on year
U.S.	134.6	132.6	132.2	128.8	+ 4.5
U.K.	102.8	102.0	102.5	103.2	+ 0.6
Italy	124	125	129	126	- 1.6
Holland	119.8	122.4	113.2	127.5	- 6.0
W. Germany	113.2	108.7	115.6	112.4	+ 0.8
Belgium	106.6	105.5	119.6	108.8	- 2.0
France	127.0	122.0	127.0	129.0	- 1.6
Japan	132.3	130.9	129.8	128.8	+ 2.7

## CANTON FAIR

## Hopes of Chinese buying surge

BY OUR OWN CORRESPONDENT IN HONG KONG

THIS SESSION of China's semi-annual Canton Trade Fair, which opened Saturday, may well prove to be the most important for several years. As the first fair since February's national Peoples' Congress, foreign businessmen will be watching closely to see if the Chinese leadership is capable of carrying out the principles of open trade that the Congress enshrined as national policy.

While the fair has since the early 1970s been almost exclusively a forum for sales by China, Peking's public commitment to expanding imports of capital goods from the West and Japan has led to hopes that this session could provide an opportunity for foreign businessmen to negotiate sales of sophisticated equipment.

These hopes were given a boost last week when a Communist controlled newspaper in Hong Kong reported that China would step up purchases of advanced technology and equipment at this fair. The reports said that the Chinese will give priority to purchases of items dealing with petroleum, coal power, transport, steel, non-ferrous metals, machine and chemical industries.

Despite this, most veteran traders do not expect a significant upsurge in Chinese buying. Not only would that constitute a significant reversal in long-standing practice they argue, but Peking's penchant for long and intensive negotiations involving capital equipment effectively rules out any major import deals being concluded during the fair's one-month run.

The likelihood of China making large purchases at this fair is further reduced by the important trade agreements Peking recently signed with Japan and the European Economic Community.

Total transactions at the fair are normally in the \$1bn. range. Traditionally, the majority of this total consists of Chinese exports, particularly textiles, foodstuffs, handicrafts and other light industrial goods. China's major purchases at the fair normally include specialty steels—almost always from Japan and West Germany—and chemical products.

Reflecting China's plans for stepping up iron and steel production to 80m. tons by 1985 one exhibit at this year's fair is reported to be an 840 ton open cast mining excavator which is believed to be the largest piece of machinery ever displayed at the fair. Similarly, in line with the increasing emphasis being placed on coal production the Chinese are exhibiting what is described as a gas sensitive coal detector which detects coal deposits by analysis of coal gas, together with other items of coal mining technology and equipment.

At the same time a large display of electronic exhibits is attributed to the great importance which the Chinese are now placing on electronics. Fair officials claim that China plans a technical breakthrough in the mass production of large scale integrated circuits by 1980 followed by a more sophisticated range by 1985.

With the emphasis of the fair

likely to continue on Chinese exports, traders will be keenly awaiting indications of both supplies and prices. Peking's desire to expand trade together with a general improvement in the economy over the past year, has raised expectations that the chronically tight supply situation will improve, and price rise over the last fair will be only moderate. But Chinese trade officials have already cautioned some buyers not to expect too much. In particular, they have hinted at shortages of many textile goods, as well as agricultural items, including canned foodstuffs.

The shortages, which have been particularly conspicuous during the past two fairs, are thought to stem from Peking's desire to upgrade living standards for its people. Rationing of foodstuffs like meat, poultry and eggs has been tightened in large cities over the past two years, apparently the result of three successive poor harvests. The new leadership is keen to improve this situation quickly, both for political reasons and in order to raise worker morale and spur productivity.

The resulting export shortages and the reduced foreign exchange earnings they represent have probably been a major factor in the delay of Peking's return to the international market place as an importer of capital equipment. And while supplying the domestic market will continue to take first priority, an improvement in supplies, however slight, at this fair, would be a strong indication that China is really committed as it says to expanding trade.

## IDB loans top \$1.8bn.

BY HUGH O'SHAUGHNESSY

THE Inter-American Development Bank (IDB) approved loans totalling \$1.8bn. last year, a record figure and 18 per cent higher than the previous year's total. This is stated in the Bank's annual report presented to the annual governors' meeting which starts in Vancouver to-day.

Austria, Finland, France, Italy, the Netherlands and Sweden joined the ten countries which were already non-regional members of the Bank while the Bahamas joined as a regional member. This brings the Bank's total membership to 41.

More than half the Bank's lending went to three countries, Brazil (\$361m.), Argentina (\$318m.) and Mexico (\$257m.). Loans to El Salvador (\$109m.) and Panama (\$132m.) were more

than four times bigger than in 1976.

The Bank is currently engaged in the fourth major replenishment of its capital consisting principally of a \$4bn. increase in the capital stock of which \$34m. is to be paid in.

Though the report does not make specific reference to the problem, the Bank is at odds with the U.S. Government on the question of new capital. Washington has sought to condition its new money to the Bank not lending to governments with bad human rights records. The Bank is resisting these conditions.

The Bank reports that its lending policy has been oriented towards the least developed countries and regions of Latin America and last year gave particular emphasis to agriculture, industry, energy and transport.

## Saab cars market share

Figures for the market shares of Saab cars sold in Sweden during the first three months of this year and 1977 were reversed in the report carried in the Financial Times of April 7.

On a market, where total first quarter sales declined by 31.5 per cent compared with the first three months of 1977, Saab sold 6,834 cars against 8,062. This, however, represented an increase (not a decrease as reported) in Saab's market share from 12.3 per cent to 14.78 per cent.

Particularly significant for Saab was that sales of its 900 Combi coupe rose by 454 units to 3,486 during the first three months and for the first time exceeded sales in Sweden of Volvo's 245 estate car.

## Two ways to find out why your company needs Ferodo's new ducktile flooring.

This way.

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As you may have gathered, Ferodo ducktiles are a new kind of safety flooring.

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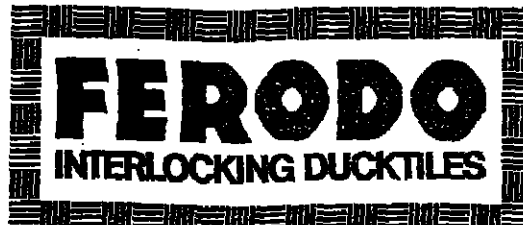
Unlike others, they are easy to clean because ducts channel off waste liquids.

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The safety-first floor.

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## HOME NEWS

## Spillers' bakers want to buy shops

By Kevin Done

THREE HUNDRED bakery shop staff, to be made redundant as a result of Spillers' decision to pull out of bread-making, will try to buy shops from the company.

The staff work for the Matthe chain of 35 bakery shops in Norfolk and Suffolk, taken over by the Spillers Group five years ago.

Mr. Frank Pye, Matthe area manager, said yesterday that the shops were "viable going concerns and our customers have been imploring us to do something to make sure that they are retained."

A petition signed by the staff was handed to Mr. Keith Stainton, Conservative MP for Sudbury and Woodbridge, at the week-end. It deplores Spillers' hasty decision to shut the shops within two weeks, saying that this would salvage a profitable and labour-intensive operation.

Mr. Stainton will seek a meeting to-day with Mr. Michael Vernon, chairman of Spillers.

He said yesterday: "If the company agrees in principle that long-serving employees should be given first refusal when the shops are disposed of, proper financing arrangements can then be considered."

He hopes for the support of Mr. John Silkin, the Minister of Agriculture, whose Department is the sponsoring Ministry for the baking industry.

Mr. Pye said: "Our people are prepared to put in their own money to make sure everything will be a success. We feel we would be acting in the best interests of the communities we serve by continuing the businesses."

## Textile trade near balance for first time in four years

BY RHYS DAVID

BRITAIN WAS almost in balance in its textile and clothing trade with the rest of the world last year — for the first time since 1973.

The industry, which has been under severe pressure from imports from low cost countries ended the year with total sales of textiles and clothing overseas falling only £6m. short of imports — a significant improvement on the £143m. and £136m. deficits for 1975 and 1976.

The key to the improvement was a big jump in clothing exports in the last half of last year. Exports rose from £247m. in the first half to £352m., while imports showed comparatively little movement, rising from £378m. in the first-half to £388m. in the second.

This still left a total deficit for clothing alone of some £168.6m., but by the final quarter the gap between imports and exports had been narrowed to only £9.43m.

In the first quarter it stood at £83m., in the second at £50m., and in the third at £26.7m.

The overall clothing deficit was covered largely by the textile industry's £162m. surplus — an improvement on the £135m. surplus of 1976.

This, however, was still not as high as the surplus the sector was able to earn in 1971, when there was a £191m. surplus at sterling values then prevailing.

The figures published by the Textiles Statistics Bureau in Manchester show that the industry, even before the signing at the end of the year of the latest round of the GATT multi-fibre arrangement governing world textile trade was faring better against overseas competition.

But other figures relating to the industry's performance last year — particularly the last quarter — offer less comfort. With the recession still making itself felt around the world, British textile industry activity in the final quarter was down 5 per cent. on the same period a year earlier, with the industry's fibre consumption 14 per cent. down.

Output figures for two important textile sectors — man-made fibres and cotton and allied textiles — for the first two months of the present year also point to a deteriorating situation.

Output by man-made fibre producers was down 8 per cent. in January and February on the same period last year. In cotton textiles, yarn and woven cloth

U.K. TRADE IN TEXTILES AND CLOTHING					
	1973	1974	1975	1976	1977
	£m.	£m.	£m.	£m.	£m.
IMPORTS					
Textiles	556	750	732	975	1,196
Clothing	333	402	505	683	767
EXPORTS					
Textiles	707	892	828	1,110	1,359
Clothing	179	230	265	412	598
TRADE BALANCE					
Textiles	+151	+141	+96	+135	+162
Clothing	-154	-172	-240	-271	-168
TOTAL	-3	-31	-144	-136	-6

production were both down on 1977 levels.

The industry is placing its hopes for the rest of 1978 on increased consumer spending on clothing, signs of which have been apparent for some time.

Against the trend generally for consumer spending, clothing expenditure was up 5 per cent. in the second half of last year on the first six months.

A further boost is expected because of the increases in take-home pay resulting from the Budget.

Stocks at retail level are thought to be relatively low so it is hoped, increased demand will result in a rise in ordering from textile suppliers.

The danger remains that stronger home demand could be fuelled by imports, despite new controls now in operation.

There is concern, too, that the stronger pound may also make exporting more difficult this year.

Warnings have already been given by Yorkshire's wool-textile manufacturers.

## Talks 'will be held with CBI before pay clause penalty'

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

THE GOVERNMENT has agreed to consult the Confederation of British Industry before it proceeds to legislate any company as a result of the pay clauses now being inserted in Government contracts.

Mr. John Greenborough, CBI president, says this to-day in a letter to confederation members.

His letter is accompanied by an explanatory memorandum setting out how companies and their subcontractors are expected to abide by the Government's pay limits or risk losing their contracts.

The event marks the end of two and a-half months' uncertainty among companies since the Government first announced at the beginning of February that it intended to insert pay clauses in its contracts.

Since then, the clauses have been substantially modified but they are still described as "very strict, or terminate contracts."

Under the terms of the clauses, failure by contractors to abide by the pay limits, or to undertake other responsibilities, could lead the Government either to withhold payment of certain bills, or to terminate contracts.

BRITISH determination to move trans-Atlantic air traffic involving Canada from Heathrow to Gatwick airport looks like provoking another major air row — this time between the British Government and the Canadian Government and the Canadian Airlines.

Yesterday, Air Canada produced a four-page document rejecting the British "provisional decision" to move the airline to Gatwick. The argument follows similar disputes with the U.S. involving reciprocal rights and culminating in a delayed start for the Braniff Airline service from Texas to London.

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## Chrysler to launch leisure vehicle

By Terry Dodsworth, Motor Industry Correspondent

CHRYSLER U.K. is moving into the market for multi-purpose leisure vehicles popularised by products such as the Range Rover, with the launch of the Matra Rancho in Britain.

The Rancho, assembled by the Matra aerospace group from Chrysler Alpine and Simca 1100 components, will go on sale in Britain at £5,580.

The front part of the body is constructed of sheet metal and the rear of reinforced polyester on a metal frame. There is a bench rear seat, with access from two passenger doors, or a split tailgate. It is driven by the 1442 cc Alpine engine.

The Rancho has had a considerable impact in France since it was launched a year ago. Its progress is being watched with interest by other European manufacturers as a guide to whether Europe will follow the American trend towards roomy leisure vehicles.

In Britain, the launch of the Matra comes as a time when the Leyland range of Land-Rovers and Range Rovers face greater competition.

The Jeep range of utility and leisure vehicles was launched a few months ago and the Japanese Daihatsu range is also being distributed in Britain.

## State building industry plan opposed

A SURVEY by Market and Opinion Research International showed that 70 per cent. of those interviewed opposed the Labour Party plan for nationalisation of building and construction companies said the Campaign against Building Industry Nationalisation yesterday.

Only 12 per cent. were in favour. Of those normally voting Labour 57 per cent. opposed the party's proposals and 20 per cent. positively supported them.

Opposition to nationalisation of the industry, employing nearly 2m., was stronger among those working in the two sectors of the industry, with 86 per cent. against 8 per cent. undecided, and 12 per cent. supporting.

Workers who stated they normally voted Labour rejected the nationalisation plan by 71 per cent.

Of members of the public 62 per cent. thought nationalisation would lower efficiency and profitability. Of those in the industry, 74 per cent. said it would be less efficient and 77 per cent. less profitable.

## Esso supports Fellowship

THE ESSO Petroleum Company is to contribute to the setting-up of a Royal Society Esso Research Fellowship in physical and applied sciences.

The fellowship will form part of the Society's scheme of establishing small research groups to aid young scientists hit by present cuts in university science departments.

## SHIPPING REPORT

## Carrier sales are picking up

BY IAN HARGREAVES, SHIPPING CORRESPONDENT

PRICES FOR second-hand dry kept busy with this type of be to the breakers' yards, cargo and bulk carrier-tonnage inquiry.

Buyers back in to the market have fallen sufficiently to draw interest centres on modern, geared vessels up to 30,000 deadweight tons and on gearless weight tons in the ten-year age bracket over 40,000 dwt.

Most purchases are Far Eastern, with China and India building up second-hand fleets. A pair of Hitech-built 60,000 tonners at relatively favourable prices were sold, with credit terms believed to span 15 years.

The Organisation for Economic Co-operation and Development guidelines, to which Japan subscribes, limit credit to seven years.

Some sales are from owners with liquidity problems seeking a sale and time-charter back arrangement with a stronger owner or financial institution: years.

Most tanker sales continue to way, although occasional sales of serviceable vessels illustrate plummeting values.

The Malmros Mariner, a 372,000 tonner built in 1975, sold for \$22m. to a Far East buyer. This represents a 25 per cent drop in value for the class of ship within six months.

The tanker chartering market continues its grim course. Rates weakened this week between worldwide 18 to 18.5 for VLCCs out of the Gulf. John I. Jacobs says that there are now 52m. tons of large crude carriers waiting in the Gulf loading area and 12 more large ships on the Banks report that they are being

## Pan Am gives you the biggest choice of 747's to the East Coast.

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On Pan Am (and only on Pan Am) you have an exclusive First Class dining room.

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We do our best to show you films that you haven't seen before. (Many of the ones

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## The Pan Am Terminal.

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And from here you can take a connecting flight to another U.S. destination.



## The real reason to fly Pan Am.

We at Pan Am have been flying all over the world since 1927.

That's over 50 years.

So it's no small wonder our people have built up a reputation for giving you the very best in service, efficiency, care and comfort.

And that, after all, is the least you should expect from the world's most experienced airline. **PAN AM.**

**Pan Am's People. Their experience makes the difference.**

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This conference has been one of the most successful events in the Financial Times' conference calendar for the past few years. Once again a panel of distinguished speakers will address themselves to many of the important subjects of the day. Two principal themes will be debated by a number of contributors: lending to less developed countries, and monetarism and its influence in the future, as well as an interesting group of individual topics.

The list of distinguished speakers and their subjects will include:

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Mr. Erik Hoffmeyer  
Governor  
Danmarks Nationalbank

INTERNATIONAL LENDING AND THE EUROMARKETS  
Mr. Henry C. Wallich  
Member of The Board of Governors  
of the Federal Reserve System

DEBATE OVER MONETARISM IN ACTION

The Rt. Hon. Lord Balogh  
Professor Alan Walters  
Professor of Economics  
The Johns Hopkins University

To: The Financial Times Limited, Conference Organisation, Bracken House, 10 Cannon Street, London EC4A 3BT. Tel: 01-236 4382. Telex 27347 FTCONF G

Please send me further details of THE 1978 EUROMARKETS CONFERENCE

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## HOME NEWS

## Engineers' body has registration plan

By DAVID CHURCHILL

THE COUNCIL for Engineering Institutions, the umbrella body representing 320,000 British professional engineers, has decided not to support the creation of a new licensing body for engineers accountable to Parliament.

In unpublished evidence to the Finiston Inquiry into the engineering profession, the council argues the case that it should itself be allowed to become the main organisation through which registration is administered, rather than any specially created body.

This view is being strongly contested by one of the council's main member institutions—the Institution of Electrical Engineers. In its evidence, submitted separately to the Finiston Inquiry, this group supported statutory registration and licensing to regulate the engineering profession in a way similar to other U.K. professions.

Statutory registration means that engineers would have their standards of qualification and rules of professional conduct set

and administered by a publicly accountable body created by Act of Parliament.

The electrical engineers' institution is to hold a special meeting in London next week to discuss the licensing systems of

Canada, the U.S. and South Africa to see whether such systems could be applied to the U.K.

The attitude taken by the umbrella organisation, however, reflects the concern among a number of small member institutions that a new outside body could threaten their existence. In its evidence, the council points out that it is already setting up a common register covering essential information about engineers. It believes that this form of registration is an efficient, economical and satisfactory method to use.

Such a registration procedure, it argues, would maintain and enforce a code of conduct for the protection of the public and also ensure that engineers belonged to a qualifying chartered institution.

The council believes that formal statutory recognition of its role as a registration body by the Government would have the advantage of establishing engineers' credibility, especially in overseas work.

It would also help establish in the public's mind the distinction between the professionally qualified chartered engineer and the general worker in industry. The electrical engineers, however, maintain that an independent registration authority, coupled with licensing, would be considerably more effective in enhancing the status of professional engineers.

They would like to see a statutory body set up composed mainly of professional engineers acting in a personal capacity on behalf of the whole profession

## More Home News, Page 9

## Scots poll gives lead to Labour

By Philip Rawstorne

LABOUR would hold all its 41 seats in Scotland in an immediate General Election, an opinion poll suggested yesterday.

The poll by MORI for the television programme *Weekend World*, indicated that Conservatives would retain six seats lost to Scottish Nationalists in 1974 and capture one from the Liberals.

Support for the Nationalists was waning, according to the poll. But the party was still expected to retain a major influence on Government policy in Scotland.

Of those interviewed 41 per cent said they would vote Labour in the General Election, 30 per cent Tory, 2 per cent SNP, and only 2 per cent Liberal.

On virtually all major political issues Labour has established a substantial popular lead, the poll shows.

Sixty-three per cent said they would vote for the Government devolution proposals in the referendum.

## "Frankly, there's not a single reason why we advertise in Radio Times."

Frank Abramson, Retail Marketing Manager, W. H. Smith &amp; Son Limited.

That was the riposte Frank Abramson gave us when we recently popped the question:

Why do W. H. Smith advertise in Radio Times?

However he went on in a more encouraging vein:

"Obviously, to any retailer, the sheer numbers of people his advertising reaches is important. When you've over 350 outlets its vital."

"So we're influenced, of course, by your 10.7 million audience."

"We're after, to use the jargon, your C2DE readers as well as your ABC's."

"After all, everyone's a potential customer to us."

"That's why we go out of our way to carpet our shops, light them attractively, make them a browser's home from home."

"And hopefully you've noticed how our staff are friendly but professional. They know their products. And they also know when to help you and when to leave you alone."

"Also," he added, having a dig, "as you never tire of telling us, you've more ABC1 readers than any other magazine or newspaper."

"What's more," he went on, ticking off his fingers, "the highest proportion (22% I think) of your readers is in the 15-24 age group, which is an important part of our target group."

"Do you want me to go on?" he said, looking at his watch.

Please, we replied.

"Okay," he muttered. "Most of our customers are women. But men are, naturally, also important. So, indeed, are children."

"We're nothing if not a family shop. And you're nothing if not a family magazine."

"Also you give people plenty of time to see and consider our ads (what's your phrase: you stay in the home nine days including two shopping weekends?)."

"Furthermore, the fact you publish thirteen regional editions gives us flexibility."

"Finally," he said (stressing the word) as well as newspapers and magazines, we're largely in books and records, the reading and listening market, if you like."

"And," he added, standing up "so are you. Which means your editorial is in sympathy with our ads."

Door knob in hand, he summed up:

"You give us the numbers, you give us the nine day stay in the home, (you give us grey hairs with your copy dates, but they're shorter than most magazines), you give us regional flexibility."

"In short, you give us what we want."

"Besides which," he called from the lift, "you're always a prime recommendation from our advertising agency, D'Arcy-MacManus & Masius Limited."

"And when one of the leading agencies in the country speaks, we listen."



This advertisement is one of an occasional series of case histories from Radio Times. For further information contact Head of Advertising Department, BBC Publications, 35 Marylebone High Street, London W1M 4AA. Telephone: 01-580 5577.

## Background to Anglo-Irish co-operation plans

## Pact could be political football

By GILES MERRITT IN DUBLIN

IF THE ANGLO-IRISH economic co-operation pact now travelling through Whitehall to No. 10 Downing Street is approved and implemented without reservation, it will be an important blueprint for industrial development both in Ulster and the Irish Republic. But it is a fairly big "if."

The joint U.K.-Irish document, which will probably be announced next month, stems from September's meeting in London between Mr. Callaghan and Mr. Jack Lynch, the Republic's Prime Minister. But its preparation has been paralleled since the beginning of this year by a sharp worsening of Anglo-Irish relations.

Open disagreement over the future of Ulster now risks turning the economic pact into a political football which the Unionists will be the first to kick.

It is just 13 years since a major cross-border initiative along similar lines was last tried. Early in 1965, Mr. Sean Lemass, then the Irish Premier, made an historic and symbolic trip North

to seal a co-operation deal with Capt. Terence O'Neill, who headed the Stormont Government.

The aim was to reverse the industrial and commercial habits of almost half a century. The main result, it is often said, was the precipitate fall from power of Capt. O'Neill in 1969. Talking cross-border sense in Ireland can be akin to talking with the enemy.

With the start of the Ulster troubles in 1969, the initiative unquestionably became a dead-letter.

There is nevertheless widespread recognition in Government and industry on both sides of the border that the continued failure to pool resources, combine markets and seek economies of scale has had a damaging effect.

Even though both parts of Ireland are likely to remain with hard cash, such as another fierce rivals, it is beginning to dawn on each that their general lack of co-operation can discourage investment.

In the last three years, private industry has increasingly urged greater cross-border links, while the EEC Commission has lately been adding its weight to this demand.

By June 1976, the CBI in Ulster had progressed to putting detailed proposals in a 30-page report to the British Government. This spelt out the advantages to Ulster of developing EEC-backed cross-border industrial projects and concluded that the vital task of broadening Ulster's industrial base could be achieved by promoting joint North-South ventures.

Most important of all, the EEC Commission had by 1976 started to take an active interest. It paid half of a £70,000 study commissioned last year by London and Dublin into communications in the Derry-Donegal border area, and is expected to back some of that study's proposals with hard cash, such as another bridge over the River Foyle.

A North-South rail improvement scheme published a month ago expects half the funds to

come from Brussels. But these growing demands for North-South co-operation should not disguise the fact that at present the links are tenuous to a degree that is barely credible.

Of all imports into the 26 counties of the Republic, only 4 per cent, or so originate in Northern Ireland. Irish exports to the North represent about 10 per cent of the total, but a high proportion of that figure is made up of goods being shipped to Scotland via Ulster.

Such is the tradition of separate development that industry on both sides of the border looks to British and even European manufacturers. Cynics say the straightest commercial line between Belfast and Dublin goes through Liverpool.

Transport costs can add up to 20 per cent to the unit cost of goods made in offshore Ireland, while there is also concern that the two economies should rationalise their industries. The alternative is wasteful duplication.

# DON'T USE YOUR MONEY TO BUY A NEW AUDI.

## USE OURS.

During April and May, your Audi dealer will greet you with more than a warm smile.

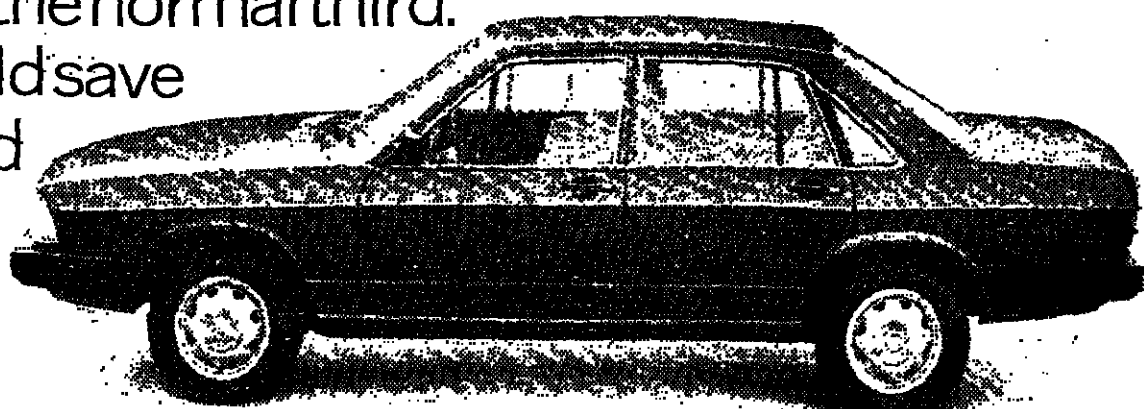
He has two pieces of valuable information for you.

First, that we can give you a loan to buy a brand new Audi 100 or Audi 80 at just 3%\* interest. (That's over 50% less than even the kindest Bank Manager is likely to charge.)

Second, that if it's a business purchase you need only pay him a 20% deposit, instead of the normal third.

The first of these changes could save you up to £536\*. The second could make your deposit £744 smaller.

Have you ever needed so little money to buy so much car?



## THE NEW AUDI 100.

We think we've thought of everything.

\*Figures taken on purchase of new Audi 100LS Automatic, costing £5,580. 20% deposit is £1,116; 3%\* deposit is £1,860. Interest over a 2 year period at 3% per annum is £268.

(3% per annum is equivalent to a true rate of 5.5% per annum over a maximum 2 year period.) All agreements are on HP through AUF Ltd, and subject to their acceptance. Offer period runs from April 8 to June 10 1978. Audi Marketing Department, Volkswagen House, Brighton Road, Purley, Surrey.



# The Queen's Awards for Export and Technology

## to be announced on April 21 1978



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**FINANCIAL TIMES**  
EUROPE'S BUSINESS NEWSPAPER

## LABOUR NEWS

PHILIP BASSETT DISCUSSES THE DEBATE ON WORKERS' CONTROL

### A long-term future

MR. HUGH SCANLON, president of the Amalgamated Union of Engineering Workers, said in 1968 in the first pamphlet marking the birth of the Institute for Workers' Control that shop stewards' interest in the introduction of new machines or output levels as well as wages and hours was a radical move away from the defensive mentality of the past.

It is a measure of how far the concept of workers' control has come that 10 years later, 2,000 workers at British Leyland's Speke car plant in Liverpool should undertake a bitter 16-week strike on exactly the issue of the introduction of new output levels.

The twelfth conference of the Institute for Workers' Control which took place at Sheffield University at the weekend marked the movement's tenth anniversary.

The institute was set up in April 1968 as an uneasy alliance of workers and academics in a direct response to a growing need among workers to have more say in their jobs.

Its aims remain simple: workers' control of the means of production, ownership and exchange.

#### Cohesive

Since then it has developed, through concepts like shop stewards' combined committees and the principle of opening companies' books, into a kind of workers' equivalent of the Government think tank.

Delegates may not be going back to work to-day to put ideas heard at the conference straight

into practice, but in another 10 years' time this "week-end" "radical move" may be the norm.

The institute, though small—with some 400 direct members—is a remarkably cohesive body for an organisation that mirrors the classic tension of the Labour Party between intellectuals and workers.

It has survived take-over bids by the extreme Left and attacks from the extreme Right.

But a split exists in its ranks, between those who believe in worker-participation and those who believe in worker control.

Participation is seen by its critics as workers being invited to management Board rooms to be told there what is going on rather than on the shop floor.

The Leyland commitment to participation, for example, was attacked at the conference as a management idea dispensed with when it came to the Speke closure.

But its supporters pointed out that Leyland stewards had far more knowledge of company proposals than, say, their counterparts in Ford would have done.

Worker control, in the form of the Lucas or Vickers stewards' combine, for example, where workers have in their plans control of their own work and products, is the aim of the movement.

A deeper split than this exists outside the movement, illustrated at its most extreme by Mr. Arthur Scargill, the Yorkshire president of the National Union of Mineworkers.

He told the conference delegates on Saturday that workers' control was "the academic's

dream of Utopia and the apologist's road to Socialism."

There is suspicion of workers' control in the form of combined committees, for example, from managements, which see them as a fundamental political challenge to the way industry operates, and from trade unions because the combines cut across boundaries traditionally guarded by particular unions.

Mr. Bill Jones, the Institute chairman and former executive member of the Transport and General Workers Union, admits the conflict but sees the combine as the way forward.

#### Long-term

TGWU line operators at Dagenham may know what their opposite number at Halewood are doing through the union, but only through a Ford combine could all the workers at both plants act together if needed.

Combines, though, are long-term projects. Great things are hoped for by the institute from the Vickers combine. But after six years' hard work making a strong, well-run organisation, the Lucas combine was told last month that 1,700 jobs were to go on Merseyside.

The institute is an organisation which knows its effects can only be long term. The Bullock report on worker democracy is something few delegates could have hoped for 10 years ago.

A development such as Bullock, though, was something implicit in the founding of the movement.

An institute special conference on the Bullock report

voted narrowly to reject its present form.

This was because, while it was a step in the right direction, according to Mr. Jones, it was not a formula for getting workers to company Boards.

It suspected, in any case, the report could quickly end in the Government's waste-paper basket.

The institute's future is likely to be one of long-term achievements rather than short-term results.

But it is facing up to a present unemployment figure by joining forces with community action groups to elect now best to fight for the right work.

There is support for the institute. Mr. Moss Evans, general secretary of the TGWU, said in a message to the conference that more positive heavy means of union representation in corporate planning was needed.

"There is a need for industrial democracy to make industry socially respectable—to ensure management does not treat labour as just another cost."

Workers' control is an idea, Mr. Scanlon said 10 years ago that it could realise the socialist aspirations of a society geared not to the exploitation of man by man, but to the administration by free men of material abundance.

More than a century earlier William Morris put it in phrase used as the conference watchword: "No man is good enough to be another's master." The institute has succeeded in giving that old sentiment new and ingenious form.

#### Swan Hunter clerks seek pay increase

THE PAY AGREEMENT which Swan Hunter hoped would end inter-union pay rivalry at its five Tyneside shipyards has encountered new friction. Draughtsmen and clerical workers have submitted a claim to be included in the agreement, which gives craftsmen £83 and ancillary workers £71 a week.

They say the deal, approved by the Government three days ago, leaves them £12 a week behind boilermakers and outfitting trades.

#### Teachers threaten new contract sanctions

A SERIES of sanctions, was threatened yesterday by the National Association of Schoolmasters / Union of Women Teachers, the second largest teacher union, in a contracts dispute with the local authorities.

A week-end meeting of its executive decided that from May 8 its 100,000 members will be instructed to stop carrying out voluntary after-school activities.

These will include parents' staff and departmental meetings, speech evenings and governors' meetings.

Mr. Terry Casey, general secretary of the union, made it clear that school meals and voluntary activities organised by the teachers themselves will not be affected. This includes inter-school or club activities.

The new move by the union represents a tougher line in its dispute with the local authorities as to what part of the teachers' day represents a contractual obligation and what are voluntary activities.

The union has been trying to get each of the 104 local education authorities in England and Wales to give a written undertaking that after-school activities by teachers are purely voluntary.

#### Pit rescue men demand better bonus

By Our Sheffield Correspondent

PIT RESCUE brigades in Yorkshire, the National Coal Board's biggest coalfield, are dissatisfied with their bonus allocation.

They claim that it is similar to that earned by typists—about 40 per cent of the area's average pay. If the offer is not improved, 66,000 miners will take action.

Mr. Arthur Scargill, their leader, said yesterday that he hoped to negotiate on their behalf.

### This week in Parliament

**TODAY** — Conclusion of Budget debate. Judicature (Northern Ireland) Bill (Lords), second reading.

**LORDS**—Debate on preserving the Ridgeway. Debate on problems of widows. Short debate on review of Children and Young Persons Act.

**SELECT COMMITTEES**—Expenditure: General Sub-committee. Subject: Central Office of Information. Witnesses: Advisory Committee on Advertising. (4.15 p.m. Room 8.)

**EXPENDITURE**: Education, Arts and Home Office Sub-committee. Subject: Provision for museums and libraries. Witnesses: Department of Education and Science. (4.15 p.m. Room 13.)

**OVERSEAS DEVELOPMENT**: Subject: Renegotiation of the Lomé Convention. Witness: Mr. Leslie Hucksford, Under-Secretary for Industry. (4.30 p.m. Room 16.)

**PUBLIC ACCOUNTS**: Subject: Job Creation and General Butter Subsidy. Witnesses: Department of Employment, Manpower Services Commission, Intervention Board for Agricultural Produce. (5 p.m. Room 16.)

**WEDNESDAY** — Commons—Wales Bill, committee stage.

**LORDS**—Scotland Bill, committee stage. Import of Live Fish Bill, report stage. Aviation Security Fund Regulations 1978.

**SELECT COMMITTEES**—Nationalised Industries. Sub-committee B. Subject: The electricity supply industry, reorganisation. Witnesses: Electricity

Council. (10.45 a.m. Room 8.) Expenditure: Social Services and Employment Sub-committee. Subject: Employment and training in the new unemployment situation. Witness: Mr. Edward Heath, chairman of the all-party lobby on youth affairs. (3.00 p.m. Room 8.)

**WEDNESDAY** — Commons—Wales Bill, committee stage.

**LORDS**—Scotland Bill, committee stage. Import of Live Fish Bill, report stage. Aviation Security Fund Regulations 1978.

**SELECT COMMITTEES**—Nationalised Industries. Sub-committee B. Subject: The electricity supply industry, reorganisation. Witnesses: Electricity

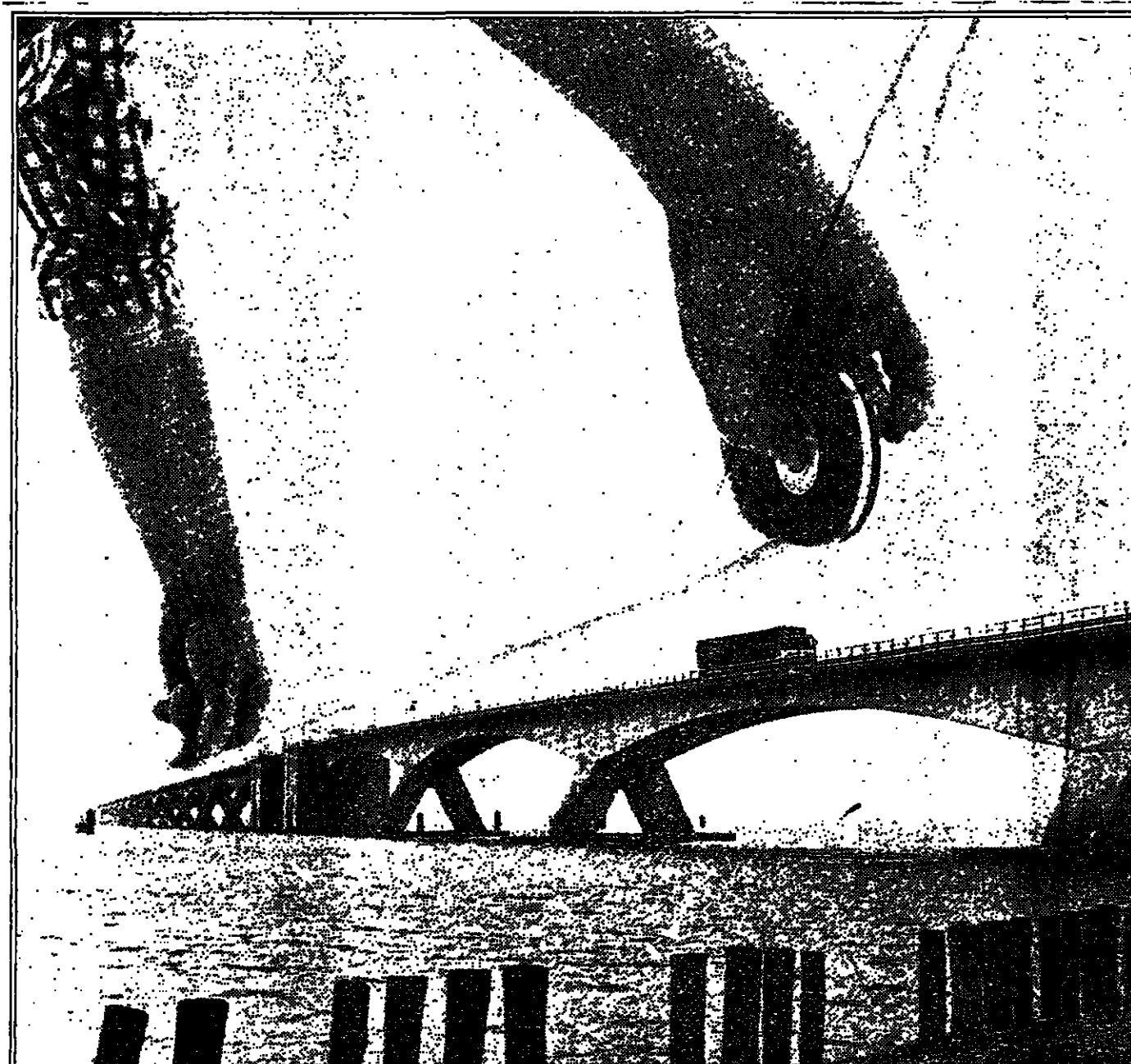
Bank. (4.30 p.m. Room 6) Race Relations and Immigration. Subject: Effects on E.E.C. membership of race relation and immigration. Witnesses: Home Office officials. (4.3 p.m. Room 14.)

**EXPENDITURE**: Environment. Sub-committee. Subject: Planning procedures. Witness: Mr. Reg Prentiss, Housing Minister. (4.00 p.m. Room 5.)

**THURSDAY** — Commons—Supply day debate on National Health Service Medical Bill (Lords) remaining stages.

**LORDS**—Debate on defence White Paper.

**FRIDAY** — Commons—Private members' Bills.



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مكاتب الاستثمار







● METALWORKING

## Welds are kept to right track

WORK CARRIED out in Germany on behalf of the big Swedish welding specialist group ESAB has led to the development of an electronic method of continuous control of the tracking of welding heads on MIG and MAG machines.

Far superior to earlier methods which relied on mechanical feelers to ensure correct line-following, the new equipment relies on the arc itself as the sensor to maintain correct tracking of the electrode along the joint.

Any variations in the breadth, length or other dimensions of the arc from the correct parameters are immediately sensed and the differences translated into commands to two control motors.

These apply the appropriate adjustments to bring the arc back to where it should be, through a pair of worm-driven slides which carry the welding head.

The method is now fully established for inert gas and argon gas welding. It is being extended to TIG and submerged arc and is expected to be available on such equipment in six months.

A further development will take in three-dimensional movement.

In the meantime, equipment has been installed, and is performing very satisfactorily in Germany on large tanks and transformer casings.

It has been found that the system offers particular advantages when very long weld runs need to be made and cuts the time required for manual welding by a factor of four. Where thin and thick plate are to be joined, the system will allow for a fixed, appropriate offset of the arc.

The system was shown for the first time earlier this month in New Orleans.

ESAB is now working with the Volkswagen group to improve tolerances in automatic welding set-ups and is poised to combine ASE/ESAB robots with the welding arc follower for areas where gas welding is required.

Further information from ESAB, Box 8850, S-402 71, Gottenburg 8, Sweden.

## Protects metal surfaces

ANTI-CORROSION treatment for all ferrous metals, thought to be the first of its type which works by absorbing surface moisture and then coating the surface with a moisture resistant film—has been evolved by lubricant specialist Isaac Bentley and Co.

Vinbrite DPT has applications in all areas of industry where metal items may be subject to corrosion from the atmosphere during storage. Applied either during the manufacturing stage or at the point of storage, Vinbrite can be used to protect the internal surfaces of pipes or tanks designed to carry oil, gas and the phosphate ester fluids

used in the compensators, tensioners and blow out preventers of offshore rigs.

The material is in the form of a water-based emulsion. The absorbed water is evaporated to atmosphere, leaving the soft greaselike film, which is sufficiently tenacious to allow components to be handled after application with no risk of protection being affected.

A swab immersed in Vinbrite, pulled through a pipe of smaller diameter, is sufficient to provide a coating and full protection against corrosion.

Isaac Bentley and Co., Naylor Street, Liverpool L3 0PS. 051227 1177.

● INSTRUMENTS

## Aids examination of difficult specimens

SUBSTANCES which do not readily lend themselves to analysis by conventional methods of absorption and reflection spectrometry—opaque smears, creams and rough or irregular solids are good examples—can be satisfactorily dealt with by a new instrument made by EDT Research of London.

The spectrometer, OAS400, makes use of the discovery almost a century ago of the opto-acoustic effect. By Alexander Graham Bell, the instrument is believed to be the first major exploitation of the effect in a commercial unit that will look at almost any kind of substance.

The £35,000 development has been 70 per cent. backed by NRDC and the work carried out by a team led by Dr. G. Kirkbright of Imperial College.

As little as two microlitres of the sample are placed in a very small sample cell which is simply inserted into the spectrometer. The sample is then irradiated with light of increasing wavelength, the spectral scan covering the range from infrared to ultraviolet, via the visible, in a few minutes.

When the light strikes the surface of the sample, it is converted into heat which in turn causes the pressure to rise in the cell, to an extent dependent upon the wavelength and

whether molecules are present that are specifically excited by that frequency.

In the OAS400 the light source is chopped by a shutter; the pressure oscillates at the same frequency, its amplitude being a measure of the molecules present, and the oscillations are detected by a microphone in the wall of the cell. Results—an absorption spectrum of the sample—are plotted on a chart recorder.

An important bonus for the technique is that it becomes possible to "look in" at different depths below the surface of the sample. This is because although the conversion from light to heat may take only a few nanoseconds, heat transfer through the sample to the surface may take several milliseconds—of the same order as the chopping frequency. Hence, phase delay of the pressure signal in relation to the incident signal yields depth data. Using high chopping frequencies depths to only a few microns may be analysed while lower modulation frequency enables the analyst to search deeper.

Wide application is expected in biological work and in the food, pharmaceutical, paint, oil and semiconductor industries, for example. More from EDT Research on 01-961 1477.

● COMPUTERS

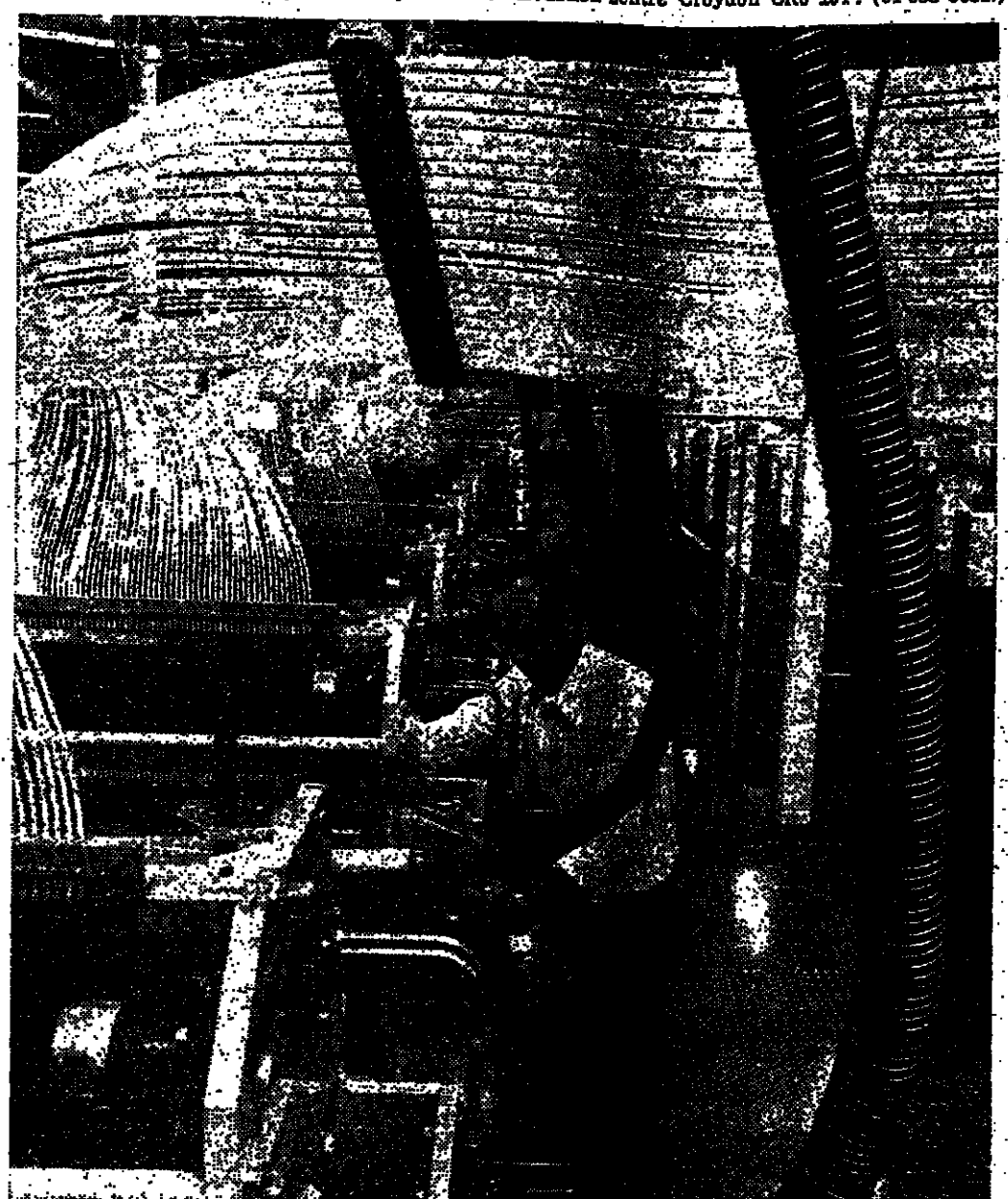
## New kind of insurance

ALTHOUGH every computer in the country is probably insured against loss of the hardware, and in some cases the software, in the event of fire or other disaster this might not in itself get the system "on its feet" again and (in an increasing number of cases) back to running the owner's business.

According to Colvin Computer

Centres, the main problem is will be limited to 25 subscribers, reducing the chances of any two machines, old or new, until the premises are reinstated. Occupancy will be limited to a nine months, and no rent will scheme, arranged along the lines of an insurance policy by which charge will become due for the participants pay an annual premium but instead of receiving an agreed sum in the event of a disaster, are entitled to make use of emergency accommodation for a period of a year or other subscriber needs an agreed period. Fully functional accommodation is provided complete with everything except the computer itself.

Premium is £4,000/annum, believed by Colvin to be less than 1 per cent. of a typical company's annual DP budget. Any one accommodation centre Croydon CR9 1JF. (01-888 3632.)



This machine has been developed by McDonnell Douglas Corporation for the production of insulation material for ships carrying liquefied natural gas at temperatures of minus 162 degrees C. Only part of the machine can be seen here as it is 271 feet long. It is now undergoing tests at the McDonnell Douglas Astronautics Company's plant at Huntington Beach, California. The material produced is polyurethane foam stiffened in three direc-

tions by glass yarn and it emerges from the machine in the form of an endless "log" 2 feet wide, and 13 inches thick. The tubes above the operator's head feed the machine with glass fibre. McDonnell Douglas, in partnership with the Gaz Transport Company of France, has a contract to provide the liquefied natural gas containment systems for two 900 foot tankers (to be built by Sun Shipbuilding and Dry Dock Company).

● POLLUTION

## Cutting the noise in factories

IN CASES where it is not possible to effectively reduce the noise at source in industry, Acousticals of York has developed a system by which the whole building or working space can be treated using panels suspended from the roof.

It has already had initial success with the Ministry of Defence where the problem was one of intense noise, radiated by tank diesel engines under test. Noise levels of about 100 dBA were experienced in the test area and conversion was impossible even 100 ft from the vehicle. Using the suspended panel system, reductions exceeding 10 dBA have been achieved.

The company believes it is now widely appreciated that noise at any point on a busy shop floor—say in a machine shop—is partially the result of the sound being reflected from the acoustically hard surfaces of the room.

An important result of using absorptive panels near the roof is that much less noise is perceived from a machine at a relatively short distance from it, whereas normally a particularly noisy machine will be heard at the other side of the shop.

The panels are made from steel frames measuring 1,000 x 600 x 80mm containing rock fibre material particularly effective in the 500 to 2,000 Hz spectrum.

Seventy thousands of them may be required, suspended at various heights from the roof depending upon the acoustic characteristics of the total space involved. Overall result is the acoustic damping of a major reflecting surface and a reduction in the reverberation time is typically cut by half and noise levels can be cut by 6 to 8 dB where there are one or two particularly objectionable sources.

● HANDLING

## Multi-trip crates cost less

DESPITE the imposition of a heavy deposit on plastic crates there are often serious delays in their return which place a considerable burden on companies purchasing them. The problems, especially in the soft drinks trade, are more acute during peak marketing periods. Now, Ashtan Containers has launched a drinks crate made from corrugated fibreboard, capable of making up to 50 trips.

More from the company at Livingston, West Lothian, Scotland.

## CONTRACTS AND TENDERS

### Lembaga Letrik Negara Tanah Melayu

National Electricity Board of the States of Malaya  
Bersia and Kenering Hydro-Electric Project  
Contract for Civil Engineering Works

#### PREQUALIFICATION OF TENDERERS

The National Electricity Board invites Applications from suitably qualified and experienced contractors wishing to be prequalified as tenderers for the Bersia and Kenering Hydro-Electric Projects on the Upper Perak River, Malaysia.

Applications will be limited to Contractors from member countries of the World Bank and Switzerland. The works shall comprise principally:

**BERSIA**—A concrete dam of approximately 200,000 cubic yards, power intake, conventional above ground power station to accommodate three units with a total capacity of 72 MW, a concrete spillway, and a switchyard.

**KENERING**—A concrete dam of approximately 400,000 cubic yards and dykes to abutments of approximately 600,000 cubic yards fill, power intake, conventional above ground power station to accommodate three units with a total capacity of 120 MW, a concrete spillway, and a switchyard.

Tenders will be accepted either for the Bersia Development or the Kenering Development or for both the Developments as one Project.

Applicants should first request a copy of the document entitled "Brief Description of Civil Engineering Works and Prequalification Document" from:

Project Manager  
Bersia and Kenering Hydro-Electric Project  
The Shawinigan Engineering Company Limited  
620 Dorchester Boulevard West  
P.O. Box 3010, Station B  
Montreal, Quebec, CANADA H3B 3L7.

Copies of this document may also be obtained from:

The Project Engineer  
Bersia and Kenering Hydro-Electric Project  
Hydro-Electric Division (Fourth Floor)  
National Electricity Board  
129 Jalan Bangsar  
P.O. Box 1003  
Kuala Lumpur, MALAYSIA.

Formal applications for Prequalification in triplicate should be submitted not later than June 1, 1978 as follows:

(A) Two (2) copies to  
Project Manager  
Bersia and Kenering Hydro-Electric Project  
The Shawinigan Engineering Company Limited  
620 Dorchester Boulevard West  
P.O. Box 3010, Station B  
Montreal, Quebec, CANADA H3B 3L7

(B) One (1) copy to  
General Manager  
National Electricity Board  
129 Jalan Bangsar  
P.O. Box 1003  
Kuala Lumpur, MALAYSIA.

The National Electricity Board will not defray expenses incurred in the preparation of the prequalification application or the Tender and will not be obliged to accept the lowest or any tender.

It is expected that Invitations to Tender and Tender Documents will be issued to Prequalified Tenderers on or about August 15, 1978 and that tenders will be required to be submitted approximately four months thereafter.

### YEMEN ARAB REPUBLIC YEMEN GENERAL ELECTRICITY CORPORATION

132kV Transmission Project—Sub-stations  
It is the intention of the Yemen General Electricity Corporation to invite Tenders for 132kV sub-stations for the Yemen Arab Republic.

Tender documents will be arranged in two parts—Contract YEM008—Sub-stations and Contract YEM010—Power Transformers. Tenderers may quote for either or both Contracts.

Tenders will be called for on a supply, delivery, erection and commissioning basis for:  
(i) 132kV enclosed sub-station associated with a new power station near Hodeidah with 1 x 25MVA 132/33kV interbus transformer.  
(ii) 132/33kV enclosed sub-station at Hodeidah city with 2 x 80MVA 132/33kV transformers.  
(iii) 132/33kV sub-stations at Rissabah, Bajil, Sana'a and Amran with outdoor 132kV and indoor 33kV equipment with a total of 2 x 60MVA and 4 x 15MVA, 132/33kV transformers.

The scope of work includes all civil works, buildings, steel structures, switchgear, protective equipment and low voltage A.C. and D.C. switchboards and batteries and ancillary equipment. Civil works associated with the transformers form part of the sub-station contract.

Firms with adequate experience who have registered their interests by 21st April will be sent further particulars of the Project. Only firms who have registered may obtain the documents which will be available for collection from the Office of the Consulting Engineer Messrs. Kennedy & Donkin, Premier House, Woking, Surrey GU21 1DG, United Kingdom (Telex 859123) by the end of May, 1978.

A non-refundable fee of YR 2,500 or £300 sterling will be charged for each set of documents at the time of issue.

The Project will be financed by loans from the Saudi Fund for Development and The Arab Fund for Economic and Social Development.

Firms wishing to register should apply in writing to the Chairman, Yemen General Electricity Corporation, P.O. Box 178, Sana'a, Yemen Arab Republic, with a copy of this letter to the Engineer, Messrs. Kennedy & Donkin.

### LEMBAGA LETRIK NEGARA TANAH MELAYU NATIONAL ELECTRICITY BOARD OF THE STATES OF MALAYA TRENGGANU HYDROELECTRIC PROJECT Kenyar Dam and Associated Works Contract Prequalification of Tenderers

The National Electricity Board invites applications from suitably qualified and experienced contractors wishing to be prequalified as tenderers for the Kenyar Dam and associated works Contract for the Trengganu Hydroelectric Project on the Trengganu River in Trengganu, Malaysia. The works will comprise the construction of a 150 m high rock-fill dam with an ungated chute spillway, an intake structure, four 3.75m pressure conduits and a 400 mW surface power station.

Part of the cost of the contract may be financed from a loan of the Asian Development Bank (ADB) and a loan of the Kuwait Fund for Arab Economic Development (KFAED). In such event, contractors from countries that are not members of ADB or not eligible for financing under KFAED rules will not be considered.

Prospective applicants should first request a copy of the document entitled "Brief Description of Works" which may be obtained from:

Business Manager  
Snowy Mountains Engineering Corporation  
P.O. Box 356 Cooma North 2620  
NEW SOUTH WALES, AUSTRALIA.  
Copies of this document may also be obtained from:

Project Engineer  
Trengganu Hydroelectric Project  
Hydroelectric Division (Fourth Floor)  
National Electricity Board  
129 Jalan Bangsar P.O. Box 1003  
KUALA LUMPUR, MALAYSIA.  
Formal applications for prequalification should be submitted not later than 22 May 1978. It is expected that invitations to tender and tender documents will be issued to prequalified tenderers about August 1978, and that tenders will be required to be submitted approximately 3-4 months thereafter.

### PROCESSES Analysis of water

PYE UNICAM has released details of the AC6 water analysis system which offers an alternative to the conventional continuous systems used in water analysis.

AC6 comprises the company's automatic chemistry unit, an UV/visible spectrophotometer and a digital printer. The chemistry unit takes samples, adds up to 4 reagents, incubates (at any temperature between 20 degrees C and 70 degrees C) and transfers the samples ready for measurement in absorbance or directly in concentration.

Results are then displayed on the printer, along with sample identification from the chemistry unit. The AC6 works on a flexible discrete principle. Every sample handled has its own disposal tube, rather than being separated by an air bubble in a continuous tube. This has many advantages, the main ones being lower cross-contamination and therefore better result of discrimination, wide analytical range, higher sample throughput and a faster interchange of analysis methods.

Pye Unicam, York Street Cambridge, CB2 3BB.

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### CONTRACT NEWS

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SYRIAN ARAB REPUBLIC  
GENERAL ORGANISATION  
OF THE BUILT ENVIRONMENT  
AL-HAMRA (D.A.A.)  
CALL FOR LOCAL AND FOREIGN  
FURNISHING OF THE BUILT ENVIRONMENT  
The General Organisation of the Built Environment (G.O.B.E.) is a public body established by the Syrian Arab Republic. It is responsible for the planning, design, construction and maintenance of the built environment in the country. It is currently seeking tenders for the furnishing of the built environment in the city of Aleppo.

The G.O.B.E. is a public body established by the Syrian Arab Republic. It is responsible for the planning, design, construction and maintenance of the built environment in the country. It is currently seeking tenders for the furnishing of the built environment in the city of Aleppo.

For further details contact:  
FRANCIS PHILLIPS  
on 01-248 8900 Ext. 456

### CONTRACTS AND TENDERS

APPEAR  
EVERY MONDAY

For further details contact:  
FRANCIS PHILLIPS  
on 01-248 8900 Ext. 456



## APPOINTMENTS

## Guinness Park Royal managing director

Mr. M. R. Hatfield has been appointed managing director of the Guinness Park Royal, following the death of Mr. P. T. Cunningham.

Mr. C. J. Spence has been appointed a director of the English Association of American Bond and Share Holders.

London-born Mr. Robert A. Savage has been elected executive vice president and Mr. C. C. Chiu has been elected senior vice president of AMERICAN EXPORT INTERNATIONAL TRADING CORPORATION. Mr. Savage joined the London branch of AEIBC, a wholly owned subsidiary of American Express Company, in 1965 as principal foreign exchange dealer. In 1971 he was elected vice president, with worldwide responsibilities for foreign exchange and money management. He was assigned to New York in 1973 and was elected

senior vice president the following year. As executive vice president, Mr. Savage retains responsibility for the commercial activities of AEIBC and its subsidiaries in their 65 locations around the world.

Mr. Chiu, who joined AEIBC in 1961, has been associated with the Asian correspondent banking group since 1968. Mr. Lais A. Abella and Mr. Peter Fowler, both specialists in Latin America, have been elected vice presidents of AEIBC.

Mr. Tom Hibbert, has succeeded Mr. Michael Roberts as chairman of the WOOL TEXTILE DELEGATION. Mr. Hibbert has been re-elected vice-chairman and Mr. Bruce Murgatroyd will serve as the other vice-chairman for a limited period. Mr. Derek Brabury continues as honorary treasurer.

Mr. Gerry Harriott has been elected president of the GRAPHIC REPRODUCTION FEDERATION.

Vice-president is Mr. Malcolm Fifer, and Mr. Jerrold Goodman has been elected honorary treasurer. Immediate past president is Mr. Michael Denby.

Mr. W. A. Cavender has joined CYBERNET TIME SHARING as managing director from Honeywell Network Information Systems where he was sales and marketing director.

Mr. F. E. Bleasdale has been appointed an assistant general manager (International) MIDLAND BANK from May 1. He joins Midland from the Esso Petroleum Company.

Mr. J. Simpson, Mr. D. C. Wake and Mr. R. J. Morris have been appointed directors of WALTER LAWRENCE.

Mr. D. H. Jones, Mr. E. A. McSwiney and Mr. M. S. Rosenberg have been appointed executive directors on the Board of UNITED MEDICAL ENTER-

PRISES, the company owned jointly by National Enterprise Board, Commercial Union Assurance, Orion Bank and London Trust, and which recently made a successful bid for Allied Investments.

The Secretary for Prices has appointed Mrs. Janet Upward as deputy chairman of the DOMESTIC COAL CONSUMERS' COUNCIL until February 28, 1981.

Mr. A. J. Hughes was elected president of the PAINTMAKERS ASSOCIATION of Great Britain for 1978-79. He is chairman of Berger Jenison and Nicholson.

Mr. Robert R. Edgar has been appointed chairman and Mr. Ronald Collingwood, deputy chairman, of H. SAMUEL, and both remain joint managing directors. Mr. S. R. Gentili and Mr. G. G. Lemen continue as merchandise director and estates director, respectively, and Mr. J. N. Lindop as a non-executive director.

## New credit details out soon

By Michael Blandon

MORE DETAILED figures on the amount and pattern of installment credit business in the U.K. are to be published soon by the Department of Trade, according to Credit, the journal of the Finance Houses' Association.

Mr. M. J. Erritt, a chief statistician at the Department, reports that the improved information will result from a revised form of inquiry to be introduced in July.

Its emphasis would be on consumer credit transactions. This was aimed at enabling the authorities "to monitor more effectively the trends of business under agreements regulated by the 1974 Consumer-Credit Act."

The provisions of this Act were being introduced in stages and would bring a big improvement in the protection offered to consumer borrowers. The new statistics were geared to this.

Rental receipts would be covered for the first time and contributors — who are to be more representative of the consumer credit industry — would be asked questions specifically about running account credit. Figures on repayments would also be required.

## £12m. to be spent on creating new jobs in South Wales

A £12m. package of Government measures to provide new jobs in the Blaenau-Gwent area of South Wales was announced at the weekend by Mr. John Morris, Welsh Secretary. He said that after the ending of steelmaking at Ebbw Vale works next month it had been decided to invest £12m. on new factories and sites.

Up to £8m. would be allocated to the Welsh Development Agency in 1978-79 for accelerating development of the Rassau Industrial Estate, and a programme to provide 450,000 square feet of factory space in the area would begin.

The investment initially would provide up to 200 jobs with the prospect of double that number eventually. It would bring much needed work for the construction industry in the area.

The Government was determined that every help should be given to the industrialist seeking to move to the Ebbw Vale area or expand business there, said Mr. Morris.

The task of finding new jobs was "daunting" and good communications were vital. He hoped it would be possible to bring forward a plan for a bypass between Roger Stone and Risca, in Gwent.

Mr. Ian Gray, managing director of the Welsh Development Agency, said: "We have already done a great deal of grand work

in developing what will be a major new industrial estate at Rassau, near Ebbw Vale.

"We have spent £700,000 on clearing the site and within the next few days we expect to let a £2m. contract for site engineering, which will create plant forms for the new factories, and

for site roads and services. "Work on building factories will commence in July and the first unit should be ready about a year from now. The number of inquiries we are receiving about industrial premises in the Heads of the Valley area is very encouraging."

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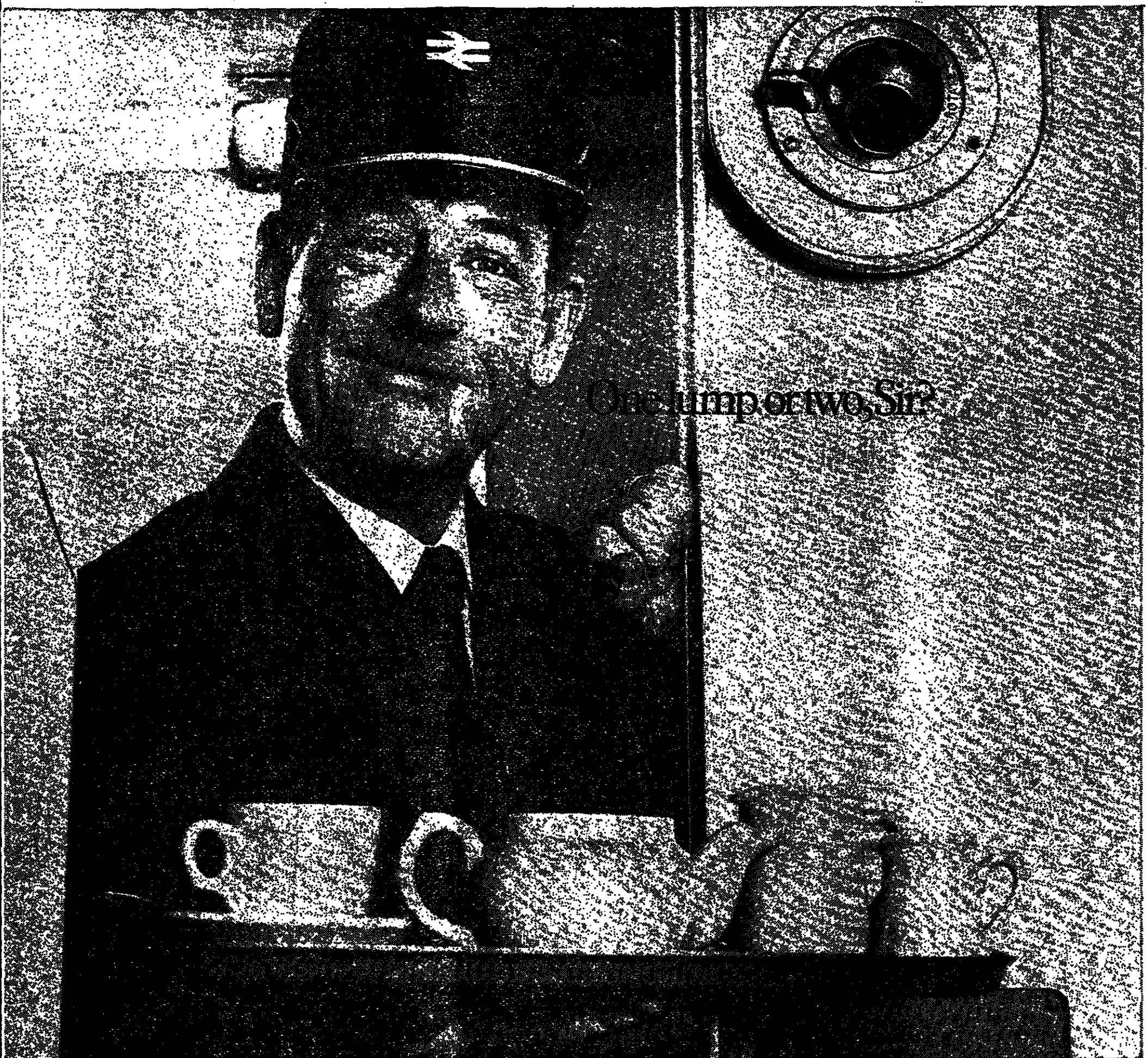
## PLANT &amp; MACHINERY SALES

Description	Telephone
1972 DECOIL, FLATTEN AND CUT-TO-LENGTH line complete with automatic sheet stacking unit and coil reservoir. Max. capacity 1525 mm wide x 3.25 mm gauge x 15 tonne steel coil.	0902 42541/2/3 Telex 336414
8 BLOCK (400 mm) IN LINE, NONSLIP WIRE DRAWING MACHINE in excellent condition 0/200ft./min. variable speed 10 hp per block (1968).	0902 42541/2/3 Telex 336414
24" DIAMETER HORIZONTAL BULL BLOCK By Farmer Norton (1972).	0902 42541/2/3 Telex 336414
ROTARY SWAGING MACHINE by Farmer Norton (1972).	0902 42541/2/3 Telex 336414
SLITTING LINE 500 mm x 3 mm x 3 ton capacity. TWO VARIABLE SPEED FOUR HIGH ROLLING MILLS Ex. 6.50" wide, razor blade strip production.	0902 42541/2/3 Telex 336414
MODERN USED ROLLING MILLS, wire rod and tube drawing plant—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.	0902 42541/2/3 Telex 336414
1974 FULLY AUTOMATED COLD SAW by Noble & Lund with batch control.	0902 42541/2/3 Telex 336414
1970 CUT-TO-LENGTH LINE max. capacity 1000 mm 2 mm x 7 tonne coil fully overhauled and in excellent condition.	0902 42541/2/3 Telex 336414
1965 TREBLE DRAFT GRAVITY WIRE DRAWING machine by Farmer Norton 27"—29"—31" diameter drawblocks.	0902 42541/2/3 Telex 336414
STRIP FLATTEN AND CUT-TO-LENGTH LINE by A. M. Max capacity 750 mm x 3 mm.	0902 42541/2/3 Telex 336414
6 BLOCK WIRE DRAWING MACHINE equipped with 22" dia. x 25 hp. Drawblocks.	0902 42541/2/3 Telex 336414
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NARROW STRIP STRAIGHTENING AND CUT-TO-LENGTH MACHINE (1973) by Thompson and Munro.	0902 42541/2/3 Telex 336414
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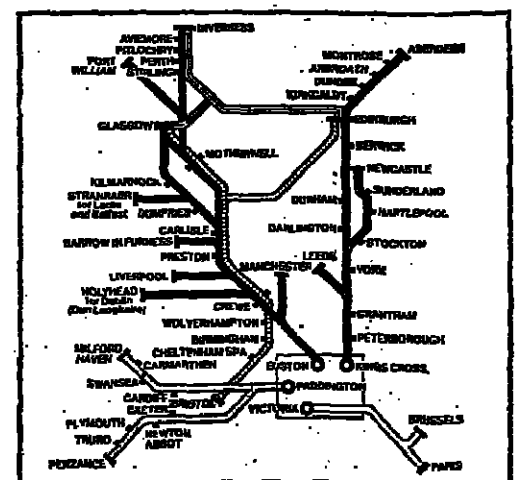
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# Building and Civil Engineering

## £3½m. in City and outer London

THREE CONTRACTS totalling £3½m. have been won by Kyle Stewart.

The largest is worth just over £2m. and is for alterations and improvements to 100 Cannon Street, London, ECA, for Bilboa House. Due for completion in September next year, the work is to be carried out under the direction of Hillier Parker May and Rowden.

Down in Surrey, at Cross Oak Lane, Redhill, Kyle Stewart is to construct a four-storey laboratory for Philips Electronic and

Associated Industries and connect it to an existing building. The largely reinforced concrete structure will cost £1½m. and take just over a year to complete. Architects are Norman and Dawbarn.

Under the third contract, a two-storey laboratory building is to be constructed at the Central Veterinary Laboratory, Woodham Lane, New Haw, Surrey, for the Property Services Agency. Work has already started on this £375,000 contract which is due for completion by March, 1980.

## Two awards to Reed and Mallik

THE SCOTTISH REGION of British Railways has awarded a £275,000 contract to Reed and Mallik, the civil engineering division of the Rush and Tompkins Group, for the construction of a jetty and associated structures.

The facility has been designed to accommodate new two-deck ferries to be introduced on the Stranraer-Larne crossing and passenger facilities to be provided, the contract calls for berthing dolphins, pontoon restraint dolphins, a vehicle pontoon and footbridges.

Another contract for Kier is valued at nearly £1m. and is for work at CBS Records' development at Aylesbury, Bucks, for which Bovis is the managing contractor. The work here involves foundations for a new factory, office block, oil tank farm, roads and car parks.

Robert Marriott which, like Kier, is a member of the French Kier Group, has been awarded a contract for the erection of 98 dwellings by Milton Keynes Development Corporation. This is worth over £1.1m. and will take just over 18 months to complete.

Single and two-storey dwellings of traditional construction are called for, together with roads, sewers and services.

The jetty, which will be 175 metres long, is to have a reinforced concrete deck supported on steel Rendsbox box piles up to 25 metres in length. Associated works will include mooring dolphins, fenders, supports for the ramp machinery and navigation beacons in Loch Ryan to mark the dredged channel.

Further work is also to be carried out on recently reclaimed land, including an access road, steel approach bridge and a pedestrian access bridge.

Reed and Mallik is also undertaking a £215,000 road improvement contract for Strathclyde Regional Council. This involves work on the A78 Glasgow-Greenock road at Fence Foot Fairlie.

## Russians drill a deep hole

SOVIET geologists who are drilling a 15km borehole on the Kola Peninsula have reached a depth of 5,200 metres and are now making preparations to penetrate to 10,500 metres, reports the Novosti Press Agency.

The success of the experiment largely depends on the cable by means of which measuring instru-

ments are lowered into the increased thermal resistance and earth's mantle. In the first stage, a 9 km cable was used. A 16km cable to reach a depth of 15km is now being designed. It will be of varying thickness, it will have to be lifted to charge and the weight of the instruments and the increasing pressure of the atmosphere, which will reach 2000 reach 210 degrees C. and at 15,000 metres 350 degrees C.

## £3m. piling contracts

BEARING PILES for the Abu Dhabi National Hotels Co.'s 420-bedroom hotel to be built close to Abu Dhabi Airport are to be constructed by Stent Foundations, a member of BICC's Balfour Beatty Group. About 1,800 piles in diameters of 600 mm and 900 mm are called for under the £3m. contract. Consulting engineers are Dar al-Handasah Consultants-Shair and Partners of Beirut and the main contractor is Joannou and Paraskevalides (Overseas).

Back in the U.K., Stent has won two piling contracts together worth over £1m. The larger (£720,000) is for sheet pile walls and large diameter bored piles for the new Royal Bank of Scotland offices in Dundas Street, Edinburgh. In the contract will be solidated Pneumatic Tool, Fraser-demolition, excavation and drainage works. Consulting engineers are Blyth and Blyth.

The other contract (£330,000), awarded by the Southern Water Authority, is for tension and with asphalt and tarmac cutting, compression piles for a sewage treatment works at Peel splitting as well as breaking out common, Fareham, Hants. About 2,228 piles will be constructed, available in standard and noise suppressed versions.

## Designed to demolish

CAPABLE of undertaking many of the duties usually requiring a much heavier class breaker, is a new medium duty Lightweight demolition tool, the CP-1210. Condemned Pneumatic Tool, Fraser-demolition, Aberdeen (03482 3131) has designed the tool with a particularly high power to weight ratio. It 42 lb (19.05 kg) can cope with asphalt and tarmac cutting, compression piles for a sewage treatment works at Peel splitting as well as breaking out common, Fareham, Hants. About 2,228 piles will be constructed, available in standard and noise suppressed versions.

## Skatepark system

AN ABOVE-GROUND, modular, pre-cast concrete skatepark system, offering an instant leisure package to councils (which can be unsupervised), has been developed by a team of consulting engineers and naval architects, a construction group and a civil engineering company. Technical advisers are Macalister Elliot and Partners, Lymington, Hants. REEMA Construction (part of Aberdeen Construction Group) has manufactured Radical Banking, factory-finished product, guaranteed for five years against surface and structural failure in normal use, whose in-situ installations will be handled by Walcott, of Telford.

There are 3m. skateboards in this country, says the Aberdeen-based company, and a vast number of unused buildings—cinemas, warehouses, plus nettle-choked, unused outdoor sites which would all be transformed on a short term or temporary basis into unsupervised skateparks for experienced and beginner skaters.

The system comprises: Radical Banking, pre-cast concrete finished in Skatcrete; in-situ concrete, suitable for large, excavated parks, and ferrocement which can be used for all installations, but particularly indoor sites, even on suspended floors, with one-off complex designs for experienced and beginner skaters.

## Crouch at Crawley

THE FIFTH housebuilding contract won by Crouch Construction (construction subsidiary of Crouch Group) for work on the Bewbush site for Crawley Borough Council, is worth around £2.2m.

Another 156 houses and 12 flats, including roads and sewers will, on completion, bring the total built by the company on this scheme to almost 1,200.

Work commences this month on the units which will be of the Rationalised Traditional method incorporating timber panelling back and front and cladding with brickwork, tiles and boarding.

of the electrical and mechanical services in the 25,000-square-metre production building, eight ancillary buildings and the boiler house, George Wimpey is building the factory for the Welsh Development Agency.

## £1½m. worth in Scotland

OVER £1½m. worth of contracts have been won in Scotland by Northwest Holst.

Lothian Regional Council has awarded two of them. One valued at over £1.1m. is for extensions and alterations at South Queensferry High School and the other, also at South Queensferry, is for the construction of Echline Primary School, which will cost £302,359.

A third contract is for the foundations for the heat exchange unit for a continuous casting plant at Ravensraig for the British Steel Corporation. This is worth £106,000.

## Factory in S. Wales

A CONTRACT worth £2.4m. for the new Hoover factory at Merthyr Tydfil has been received by the south west region of Drake and Scull Engineering. This covers the provision, installation and commissioning

## More work for French

CONSTRUCTION of a terminal at Pembroke Dock for the Milford Haven Conservancy Board is to be undertaken by Kier. Value of the contract is £2.1m.

Apart from the roll-on/roll-off and passenger facilities to be provided, the contract calls for berthing dolphins, pontoon restraint dolphins, a vehicle pontoon and footbridges.

Another contract for Kier is valued at nearly £1m. and is for work at CBS Records' development at Aylesbury, Bucks, for which Bovis is the managing

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Single and two-storey dwellings of traditional construction are called for, together with roads, sewers and services.

## Computer centre

GEC Midland Computer Services has awarded a contract, worth £181,000 to Lesser Construction for the design and construction of a computer centre in Newport Road, Stafford.

The conversion of a building known as The Hollies Cottage next door to the centre will result in a single storey 953 square metre building to accommodate the computer centre staff.

## McAlpine in Wales

INITIAL muckshifting, roads and drainage involved in creating the Rassau Industrial Estate near Ebbw Vale, at a cost of £1.93m, is to be done by Sir Robert McAlpine and Sons.

General levelling and excavation of some 800,000 cubic metres on a site area covering 72 hectares will begin next month, with completion a year later.

## Cement works extended

HOT ASPHALT storage systems are maintained while vehicle movement is optimised with the turnaround time for a 20 tonne vehicle being on average two to three minutes. Mixing plant effective outputs can now be increased by as much as 50 per cent for about 25 per cent of the cost of installing a second, mixing plant, claims the company.

The system comprises: Radical Banking, pre-cast concrete finished in Skatcrete; in-situ concrete, suitable for large, excavated parks, and ferrocement which can be used for all installations, but particularly indoor sites, even on suspended floors, with one-off complex designs for experienced and beginner skaters.

## Chippings strip in hot summer

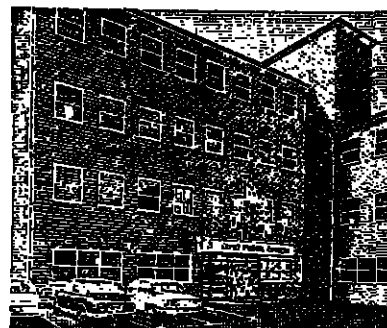
THE REASON for at least 5m. square metres of Britain's roads losing 10 per cent or more of their chippings during the winter of 1976-77 is attributed by the County Surveyors' Society to "super dry" dusty chippings.

The Society's conclusion follows a survey, carried out in 129 highway divisions in 32 counties and two London boroughs, to study damage during the winter to surfaces dressed relatively early in the previous summer. The highest failure rate was found on roads repaired during August. Weather reports showed there were consistently high temperatures during July and August when rainfall was remarkably light, although in

the following months it was double the average.

Taking all these factors into account the Surveyors conclude that many of the failures in the 1976 surface dressing work were due to stockpiled chippings as in 1976, surface dressing should be postponed until after the autumn rains have fallen, or stockpiled chippings dressed with water to work was undertaken with super dampen them before use. They also suggest that the Transport Research Laboratory should be asked to undertake studies of the phenomenon. Copies of the report may be obtained from Mr. R. J. Deputy County Surveyors' Society being undertaken immediately following July showers of rain. The report costs £100 and again a measure of success was appendices £3.00.

# Should a building take the time it takes? Or the time you've got?



Crest Hotels Europe Headquarters building at Banbury.



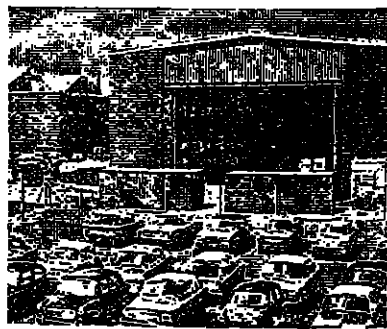
British Mail Order Corporation Reception area at Preston Headquarters of this GUS company.



Pisons Pharmaceuticals Head Office at Loughborough.



F.W. Woolworth & Co. Store at Burnley.



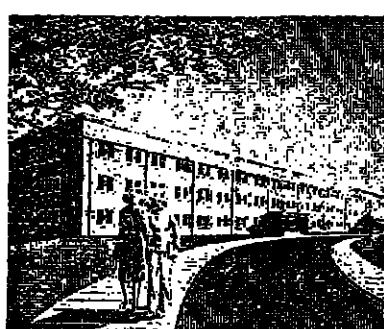
Plessey Radar Production building, Cowes, Isle of Wight.



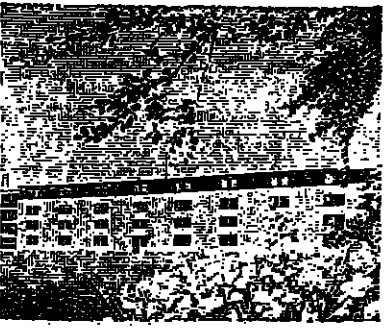
Dunlop Social Centre, Coventry.



Arthur Guinness Son & Co. Office building at Park Royal Brewery.



United Biscuits Offices at Osterley, Middlesex.



Swallow Hotels 120 bedroom extension to Vaux's Royal Scot Hotel, Edinburgh.



R. Samuel Jewellery store, Liverpool (Under construction).

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in the loo is established. We can slash the pre-contract period, and usually take months off the time spent actually building. Not surprisingly, when all the benefits are considered, we tend to end up about 10% cheaper.

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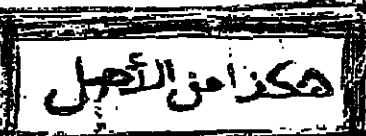
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# The Executive's and Office World

EDITED BY CHRISTOPHER LORENZ

WHEN OVER 500 of Europe's chairmen and chief executives spend more than a week together in a plush Swiss ski resort, they risk sending their desk-bound minions either green with envy or red with abuse.

When only a tiny minority of the favoured 500 chose to go on to the ski-slopes, instead of crowding into a subterranean conference hall to hear famous names discuss the need for better product innovation, and the future "plutonium economy," the reaction becomes more confused. All right, they have not come just for the ride. But why are they there? Is it worth the £1,800 a head, plus travel, hotels and food, which in almost every case their companies will have stumped up for them?

In an extreme form, these questions about the European Management Forum's 1978 Davos Symposium epitomise doubts about the real value of the plethora of less expensive and exclusive "briefings" and "seminars" and "conferences" on non-specialised topics which are held almost weekly across Europe.

There was certainly little doubt in the minds of the top brass at Davos this year that their businesses would benefit from various aspects of the action-packed conference. But some of their reasons for attending betrayed an alarming ignorance of the environment in which their businesses are operating, an attitude which can only augur ill for their future.

Take the senior Italian executive who, in all seriousness, asked the nuclear experts on the platform to get together and produce an agreed forecast for energy supply and demand in the 1980s.

Why, in this day and age, did he need to be told how difficult it has become to make accurate predictions of any sort? Had he never heard the sort of admission, all-too-common nowadays, that "within the past nine months, forecasts of average demand growth have ranged between zero and 8 per cent." (This particular one was made



Learning deft footwork for use in the Boardroom, or just a pleasant escape from reality?

at the European Petrochemical Association's last annual get-together—in a beauty spot to rival Davos, the city of Venice.)

Take the enthusiastic reaction at Davos to the Swedish manager who told a discussion group that, in his experience, "the bigger the workplace, the more problems arise. If you split things up into small groups, you help create identity and stability. And the workers react better if they're told what's going on." Surely such statements of the obvious should have provoked yawns, rather than animated discussion?

## Unfortunate

To judge from a straw poll I took of about 30 participants, from eight countries, there are three main reasons why top managers are so ignorant of trends in the outside world. First, the top brass read far too few general magazines and newspapers. Second, most people, even those with years of experience on their way to the top, comprehend the written word far less readily than the spoken. Third, there is an unfortunate, though understandable, unwillingness to take notice of uncomfortable events or ideas, which upset established ways of seeing and doing

things. Coming from a journalist, this first observation reeks of self-interest. Is it realistic to expect a hard-worked, often frantic chief executive or chairman to spend well over an hour a day reading articles which may not appear directly to concern his product area?

The straw poll threw up two extremes: "I have no time to read the papers" (a Frenchman); "I read masses of them—it's part of my job" (a German). In between was the Belgian who reads four general newspapers a day, plus several weeklies and trade journals, but feels this is still far too little, in view of the growing importance to business of "external factors" all over the world. Like almost everyone at Davos, he runs a business with operations in several countries, and is all too aware of how difficult it is to keep up with underlying international trends. Far from journalistic self-interest, he sees the reading of a wide range of newspapers as crucial to his ability to make both short-term and strategic decisions.

The obvious retort to all this is that top businessmen should have a tinhorn who, in journalistic jargon, "tastes" general reading matter for him, sifting through 30 or more papers a day, from all over the world.

## Why top managers are blind to the outside world

BY CHRISTOPHER LORENZ

and cuts out a selection of articles he thinks his boss ought to read.

This misses the point. What many of the businessmen at Davos seem not to have noticed in their readings over previous months and years were the "early warning" signs—indicators of developing trends which would affect their businesses, perhaps not immediately, but within the medium- or long-term planning horizon.

No cuttings service can replace the top manager's judgment or intuition for what is relevant to him. The cuttings service of, say, a Swiss watch manufacturer would presumably have picked up every development in the traditional industry. But would it, until the past few years, have realised the potential significance of reports about the latest advances in microelectronics in California? Yet these advances dealt the

watch industry a blow from which it is only now recovering.

Less obvious, but perhaps of still greater importance, are the even more indirect indicators a company chief may pick up from an article which at first sight appears totally irrelevant; an analogous issue in another industry or country may suddenly set him thinking. It is not surprising that the internal research of at least one leading multinational suggests that the need for chance reading and discussion increases in direct proportion to an executive's position up the management scale. The more senior he is, the more important are unexpected ideas.

But why the evident need for all but the most assiduous to assimilate ideas through verbal rather than written communication? For one thing, to quote the owner of a German engineering business, many execu-

tives find it difficult fully to comprehend the sort of documents they have to deal with for most of their working day, which are not utterly familiar to them.

But even for the less mentally lazy, speeches and person-to-person discussion are generally more "plastic" than the written word. The Davos conference provides the particularly valuable service of putting one extreme against another—Franz Josef Strauss against the Dutch Socialist leader, Joop van den Uyl, representatives of the Japanese and U.S. views on trade—so that even the laziest person is forced to think. Few pat answers are provided, a considerable advance on the average newspaper or journal, which often provides only one point of view, and a biased one at that. The most hard-hitting explanation of why top businessmen are so unaware of the all-impor-

tant external factors which will soon affect their business—if they are not doing so already—was given by an executive from Britain. "The top man is afraid to confront new ideas. If he does, he'll have to change the way he runs the firm. That means upsetting the status quo—which implies that his authority will be challenged on all sorts of points. He may have to take more notice of the young experts further down his organisation. If he's only five or even eight years away from retirement, the last thing he'll want to do is create such uncomfortable instability around him."

Let all this seem to suggest that top level briefings and conferences would be a waste of time, if only executives did their jobs properly, it is important to recognise the value of all the informal contacts which are made at an event lasting as

long as the annual Davos symposium.

The German engineering boss may be unusually widely read, but he returns to Davos year after year. It gives him the chance to think in peace, he says, away from hourly pressures and interruptions. He values the small group discussions as a regular way of checking his corporate strategy against other people's, in both similar and entirely different businesses, and in a wide range of countries: can he go on spending most of his profit on anti-cyclical investment in marketing? Should he alter his marketing approach? What should he do when the "big crash" comes—as he insists it will?

Like many other participants, he also makes specific business contacts in the corridors and mountain-top restaurants. The organisers claim that the foundation has been laid for many a business deal at the conference over the years. In 1977 a jeans factory was sold to Bolivia. Before that, a chance meeting is reputed to have led to Iran's purchase of the European Airbus. To quote one company chairman: "If my junior sales staff go to Mallorca each year to time, if only executives did their jobs properly, it is important to recognise the value of all the informal contacts which are made at an event lasting as

## EXECUTIVE HEALTH

BY DR. DAVID CARRICK

## The Traveller's tale . . . divorce?

SOME remarkable figures concerning the effect upon marriages of overseas business trips by husbands have been published by British Airways. No fewer than 50 per cent of the executives sampled blame domestic discordance, including divorce, upon such adventures. At first sight this appears to be a damaging publicity: careful consideration will see a clever and subtle drift.

Whether the figures are accurate or not, nobody could disagree that the contention could well be correct: but generalisations are dangerous and should be examined with care. The stress occasioned among the wives of the peripatetic executive may be very considerable, depending on circumstances. If stress does occur, it is induced by a mixture of emotions, including loneliness, resentment, frustration, suspicion and even jealousy. But much depends on a number of factors, including the age of couples and the stage of their marriage; the presence and age of children; selfishness on the part of both partners; and whether alterations in status and responsibility have arisen rapidly and unexpectedly.

If a young man in a lowly executive position, recently married and apparently never likely to move from a desk—and so keeping regular hours—suddenly receives rapid promotion which leads to overseas business trips, much danger may exist. The young wife, who never bargained for sudden, long partings, may well feel lonely.

Suddenly everything has changed: new responsibilities fall on her and she may well feel frustrated and abandoned. Likewise, the husband, torn between his love for his wife and his new duties, may be anxious. If he refuses to go, then advancement can be forgotten. If he goes, it may be economically impossible to take his wife with him.

## Anxieties

The next dangerous period is when the first child is born. First children are believed by their parents to be as fragile as a gas-mantle. The slightest ailment provokes great anxieties in the parents. If the husband is away when such a situation arises, then not only may the wife feel desperately lost but has an unhappy notion that the wretched man is, in some odd way, to blame for being so callous and lacking in foresight.

Later, when the children have grown up, and the marriage is on a more mellow basis, the particular problem diminishes. Sometimes the executive can afford to take his wife on journeys to conferences which are so well organised that special programmes are pro-

vided for partners. For ordinary business meetings, however, this is evidently difficult. And in much later life, so long as the wife has many friends and is involved in valuable voluntary organisations, the husband's absence may be hardly noticed. Indeed, I know one woman whose husband works in the U.S. and comes "home" only on holidays. True his children wonder who he is, but otherwise all seems to be harmonious.

All this is somewhat idealistic because, in certain cases, to whichever group the husband may belong, a resentment which can lead to suspicion never wanes unless fate snuffs it out. Always the unfortunate woman says (or merely thinks): "Why should he keep going off and enjoying himself?" If the wretched man's journeys are certainly essential, and all that he is going to enjoy are airport lounges, sunny Stuttgart, dull meetings, and more airports, then the strain of the operation is made far worse by domestic acrimony. True again that there are some philanthropists who give real cause for jealousy but such men never change and are as tiresome in Tottenham as in Tunis. Undoubtedly the stress to



... his children wonder who he is . . .

some wives, which reflects badly upon the husband's efficiency, wives, and arrange for social integration I believe that the lonely wives, having understood the objects of travelling were to be, would gain a greater comprehension. And if First and foremost is the desirability of bringing the wives to meet her husband's colleagues and superiors.

If firms, particularly large enterprises, would consider And British Airways would be very pleased.

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## JOHN I. JACOBS & COMPANY LIMITED

A year of sound consolidation

The Annual General Meeting of John I. Jacobs & Company Limited will be held on 12th May, 1978 in London. The following is a summary of the circulated statement of the Chairman, Mr. J. H. Jacobs:

Our company continues to be served by a most expert, hard working and pleasant band of people and I thank one and all for another splendid year of effort in extremely difficult times for shipping.

1977 has been another year of consolidation for our company. We have continued to be served by the great and continuing shipping slump. We are in a very strong position waiting for the upward turn, particularly in the tanker market, which will surely come one day. I cannot personally feel that such an upswing is round the corner but I am confident that most of us will live to see it.

### New freehold premises

The major event in our year was, of course, our move in the middle of May into our own new freehold office building. Such an event is a big upheaval for any going concern but I am glad to report that with the goodwill and ready co-operation of all our staff, we quickly settled down in our new surroundings and got on with our work as usual.

One matter of paramount importance for us, with our highly competitive international business, is our worldwide communications. Here I should like to record our appreciation of the service we obtained from the Post Office and congratulate that often much maligned organisation both for the calibre of their engineers who looked after us and for the willing way in which those engineers tried to satisfy us all.

Not until very recently has the demand for modern office space in the City given us much prospect of disposing of our lease of the two tower block floors we previously occupied in Winchester House. Now, however, I am able to advise you that we are in a serious negotiation for the occupation of one of these floors and we have also had some enquiry about the other one. It is therefore reasonable to believe that before too long we shall be feeling the substantial benefit of being free from this drain on our resources.

### Hard work in difficult markets

All departments of our business have again worked well in difficult markets. Like any such business we have had our successes and our failures, but a reasonable share of the London business transacted by all sections of the broking fraternity, i.e. tanker, dry cargo and sale & purchase, has been arranged by our company and we are well placed with good teams to service all clients when there is much more business to be done at considerably better rates.

Jacobs & Tervig Offshore Limited, the offshore broking company in which we have a fifty percent interest, has now established itself as a very going concern and this will be a worthwhile growth area for some time to come.

R.K. Harrison & Co. Limited, our Lloyds broking friends, also

continue to prosper and I would again remind all stockholders that they would very much like to handle any insurance business required by any of you at any time.

Precluded for the time being as we are from benefiting our stockholders by a reduction of our capital, we must instead endeavour to make steady increases in our dividend payments. With this in mind we have been endeavouring to make the cash we are holding work as hard as possible for us. I am pleased to be able to report that we are mainly invested in short or medium term fixed interest securities and deposits and these are earning what I consider reasonable returns coupled with safety. We have a small commitment to the equity market but only in first class stocks which will undoubtedly recover with the next upward swing of the market.

### Prospects tied to world shipping

As far as our country is concerned I wish I could feel happier for the coming months and years than I do. I must confess the future worries me more than a little. Under the surveillance of our creditors, the constraints imposed by the present parliamentary position and by dint of employing some of the opposition's policies, the Government have been treading a less damaging path than might have been expected. With an election within sight, it is reasonable to suppose that this state of affairs will continue for a while. As it is, both personal taxation and corporation tax are still far too high, neither being too great an incentive to the hardest work. The number of people employed by Government continues to proliferate at an alarming rate with yet new taxes and interferences of all kinds seeming to be in the pipeline should an anti-business Government attain a parliamentary majority.

North Sea oil, largely financed by good old fashioned capitalism, has of course been the major influence in the turn for the better in our economic affairs. I just hope that the proceeds therefrom will be used to put our house in order, pay off our overseas debts on time and generally restore the good name this country used to have around the world for rectitude and discipline in all its affairs big and small. Otherwise we shall just sink straight back into the pit from which our oil bounty has partly wrenched us for the time being.

Our company prospects remain tied to the state of health of world shipping. This patient has been and still is very sick. I wish I could say that convalescence and a robust condition are now in sight. Realistically they are not. Therefore, as I have earlier remarked, whilst we are strong enough to wait for the turn no matter how long that may be, we shall not show materially better trading results until it comes. I can, however, say that we shall at least be able to pay the same rate of dividend for 1978 as 1977 and I am not without reasonable hope for something better than that.

## "Provident Mutual's performance in 1977 was conspicuously above the industry average"

Extract from the Chairman's statement—Mr. David L. M. Robertson.

"The constraint of the Government's Incomes Policy and rising prices further depressed real incomes during 1977. The growth of new life assurance premiums for the insurance industry as a whole was limited to 6 per cent of the 1976 figure which emphasises the reduction in real value of disposable income. However the Association's new annual premium income for 1977 increased by 18.9 per cent on 1976 to £13.2 m. and the total premium income for the year at £56.4 m. compares with £43.6 m. for 1976. This performance, which is conspicuously above the industry average, is the result of determined effort by management and staff who are to be congratulated on an excellent achievement."

"At the beginning of 1977 the Association's increased interim bonus rates and the improved competitive position on contracts produced an increased flow of new ordinary life premium income which made a notable contribution to the year's results."

"Interest in group pension schemes started to increase in the latter half of the year stimulated in part by the approach of the new earnings-related State Pension Scheme. Although the 1977 results include little from this source, those for 1978 should disclose a revival in this business. Individual pension contracts continued to be a buoyant source of new business and the Association obtained a good share of the market."

## Bonuses

"I am confident that we have done as well by our with-profit policyholders as is consistent with the paramount need to ensure there are adequate reserves to meet future liabilities."

"Whilst the bonuses recently allotted have increased and go some way to preserving the value of savings, the fact remains that any means of savings is under pressure to maintain its value in terms of high inflation. The Association welcomes the spur of competition between the different constituents of the insurance industry to ensure that in the present consumer-orientated times its policyholders get good value for money. It must be said that a major reason for higher bonuses is the higher investment earnings which go hand-in-hand with high inflation rates."

## Provident Mutual Managed Pension Funds Subsidiary

"The Managed Pension Funds subsidiary has had a successful year. After three years spent establishing a creditable investment record, this company last year doubled its funds under management."

### Summary of Principal Results

	1977	1976
New premium income	£2000's	£2000's
Annual premiums	13,186	11,111
Single premiums	12,429	6,436
(including considerations for annuities)		
Total fund at end of year	302,148	197,715

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New York, without a BBC, ill: Betty Jones filled the role without a Camden Festival, without an Opera Rara, without an Oxford, Cambridge, Reading, and Bristol within easy reach, is a poorer place for opera than London. But the music colleges do do something. At the Juilliard last month Martin Lepp, director of its opera department, conducted a pretty and touching performance of the Cavalli-Leporello *La Calisto* and at the Manhattan School of Music there was a sparkling performance of Nino Rota's *The Italian Straw Hat*.

John Crosby is both president of the Manhattan School and director of the Santa Fe Opera (perhaps the nearest thing to Glyndebourne in America has). Costumes and production for the Rota came from Santa Fe. Crosby himself conducted; Lou Galterio, one of America's ablest opera producers, put the students through deft, accomplished music. The opera is a romp and musically quite undistinguished; while better—and more adventurous—works by Bizet, Offenbach, and Wolf-Ferrari remain unrevived there is no need for any regular company to contemplate it. But it makes a good student exercise, having many effective small roles, and it provided a merry evening.

The Juilliard maintains a deliberately "professional" atmosphere; the Manhattan has more of the exhilarating feel of a music school, and I have enjoyed many shows there: *Königsbinder*, Paul Bunyan, *I quattro rustighi*. The building, uptown near Columbia University and Riverside Church, used to house the Juilliard before it moved to Lincoln Center, and in those days it became celebrated for such things as *Jenufa* and *Elegy for Young Lovers*, directed by Christopher West. Manes, another music college, put on a very pretty *Idomeneo* last season, when Risa Stevens was its president. But now Miss Stevens has resigned, and the opera department has contracted.

Concert opera also helps to fill the gaps, and the chief provider is Eve Queler, conductor of the Opera Orchestra of New York, which performs in Carnegie Hall. Thanks to her, I have heard, with grand international casts, such things as *Francesca da Rimini* (Kabaiwanska, Domingo), *Le Cid* (Bumbry, Domingo), *Edgar* (Scotti, Bergonzi), *Gemma di Vergy* (Caballé), and *I lombardi* (Scotti, Carreras). This season she began with *Overton*. Roberta Knie was to have made her New York debut as Reiza but she was

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Mark Jacoby, Mary Wilkinson and Richard Harrell in the Manhattan School of Music production of 'Italian Straw Hat'

Elizabeth Hall

Music Group of London

by RONALD CRICHTON

Dvorak's Dumky Trio and session of shortish movements. Both went well. About the Brahms's Horn Trio in E flat, the based on dance-song models. Brahms of mainly English self-control in of London's programme last opens with a slow movement in both the sadness and the bursts of activity, yet the quality and features. Dvorak's Trio pays with an extended scherzo, a quantity of the composer's unfailing virtuosity on sonata-second slow movement and an ending in melody and form at all, being a six-fold sue uproarious hunting-finale.

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## The cost of redundancy

THE BRITISH Steel Corporation has been making good progress in negotiating terms for the early closure of its highest-cost plants including those whose demise had been deferred as a result of the Beswick review. The redundancy deal agreed last week for the end of steel making at Ebbw Vale follows a similar agreement a month ago at the East Moors works in Cardiff and others at Hartlepool and at Clyde Iron in Scotland towards the end of last year. But while the closure of old facilities will make a useful contribution to a reduction in the Corporation's losses, which are now estimated to have totalled £440m. in the financial year just ended, an even more important part of BSC's cost-saving programme is the need for improved productivity and better manning standards at its other plants.

### Backing

Here, too, there are some encouraging signs. The introduction of productivity schemes at plants such as Port Talbot is already having some effect. The BSC's efforts to introduce such schemes had been frustrated by the two previous phases of the Government's incomes policy under the terms of which productivity bargaining had been precluded. But in an agreement earlier this year the Iron and Steel Trades Confederation committed itself to the negotiated introduction of local job measurement and incentive schemes as well as to other important arrangements including improved procedures for disputes and for agreeing manning levels at new plants.

These commitments have yet to be translated into action at local level, and similar agreements have yet to be made with other unions involved in the industry. But the Steel Corporation should now be able to count on the firm backing of the Government. Last month's White Paper not only marked the abandonment of the idea of job preservation which underlay the Beswick plan; it also expressed the Government's "full, sustained and public support to the BSC in its efforts, including the steps needed to

### No norm

When jobs have to be bought out, it is up to the employees, unions, and management concerned to negotiate terms that are appropriate to the circumstances. There can be no national "norm" for redundancy pay over and above the minimum rates laid down by statute. The extent to which alternative jobs are available locally, the preference to be given to the oldest or the longest-serving workers, the case for some kind of continuing payment as well as a lump sum (a growing feature of redundancy deals) varies from case to case. So, too, do the cost savings which will ensue, and thus the share that can be made available to those whose jobs are disappearing. BSC, like the Coal Board, may be able to draw redundancy funds from the abundance of the idea of job preservation which underlay the Beswick plan; it also expressed the Government's "full, sustained and public support to the BSC in its efforts, including the steps needed to

## Long run for commodities

THE CHANCES of convening a conference by July that would succeed in establishing the proposed common fund to stabilise commodity prices are probably a lot less good than Mr. Shridath Ramphal, the Commonwealth Secretary General, suggested on Friday. But the two-day Commonwealth Ministerial meeting in London last week made some progress in bringing together the industrialised and developing nations that would have to participate.

### Realistic

The apparent readiness now to search for a compromise reflects a more realistic appraisal of the complicated issues at stake. It is also indicative of anxieties shared by both North and South about the gloomy outlook for world trade and for their economies. Developing nations fear a drop in their commodity export earnings, which account for nearly two-thirds of their visible overseas earnings, and the wrench this would have on their balance of payments and development plans.

For the West, there is a short-term gain to be had from a fall in the price of imported raw materials. But it is marginal beside the resulting uncertainties over new investment to assure supplies of future raw materials and the loss of purchasing power in the Third World, which is becoming an increasingly significant importer of capital goods. The advantage of a Ministerial meeting, such as the Commonwealth session, is that it can touch on these broader issues of trade and capital flows, which officials negotiating on a specific subject feel are out of bounds.

But major differences over the shape of the fund still remain. The view of the West is that attempts to dampen down the wilder fluctuations of the commodity markets must be firmly rooted in individual commodity agreements negotiated between producers and consumers. The most likely to be achieved are tin, rubber, coffee, cocoa, tea, and jute, with copper a possibility. Western governments are willing to share the burden of the financing of the buffer stock required to make such agreements work and to guarantee borrowings that commodity associations might need to make. But this approach

### Unpalatable

If a lot of this is unpalatable in Britain, it is more so to the U.S. and Germany. But it is important not to let the fund vanish into the sands because, for the Third World, it has become a test of the West's sincerity in negotiations. There are two promising lines of advance. The first is to demonstrate the willingness of consumer governments to participate in commodity agreements by putting a lot more urgency into the negotiation of them than has so far been seen. The second is to recognise that a long-term decline in commodity earnings will have consequences for developing countries detrimental to the efforts of Western economies to generate new growth.

Intervention in the commodity markets through the type of common fund that developing countries have in mind is not the most effective mechanism for making good their shortfall in resources. But the West is not going to persuade them to shift their ground unless it is much more forthcoming over the related issues of concern to them. In particular, access to Western markets for their manufactured goods and the availability to them of more longer-term finance.

## Perils for oil States' industrial life-rafts

THIS MONTH sees the completion of start-up trials of Qatar's Umm Said steel mill, the first heavy industrial plant conceived since the 1972-1973 oil price rises to come on stream anywhere in the Arabian Peninsula.

The event is of more than passing significance, because as all the hundreds of thousands of businessmen who visit the region every year rapidly become aware, energy-intensive heavy industry is seen by the governments as the key to making Saudi Arabia and the Gulf states viable economies before the oil runs dry. It is the foreign exchange and tax revenue earner regarded as the most logical supplement to declining oil incomes.

But in practice the odds on heavy industry fulfilling the role intended for it are highly speculative; and this calls into question the Arabian oil producers' whole future.

The states which endorse the heavy industry philosophy wholeheartedly are Abu Dhabi and Qatar. Kuwait is a partial subscriber, while (to be safe) it also tries to draw out its oil production as long as possible, and Bahrain and Dubai are aiming to combine some heavy industry with a role as service centres for the economies of their neighbours.

Saudi Arabia is in a category of its own, because its vast oil reserves enable it to look upon heavy industry not so much as a direct substitute for oil, but as a first generation of industrial development which will provide a training ground for its people and a foundation upon which later industrial development will be based.

### A small work force needed

The basic appeal of heavy industry in the minds of the planners is that most of the plants envisaged would run off locally-produced raw materials. They can (in theory) be made competitive in international markets by supplies of low-cost gas, which hitherto has been flared as part of the process of oil production. Also the work force required would be small in relation to the value of the plants' output—a vital consideration in countries which have very small indigenous populations and are heavily dependent on immigrant labour.

By these criteria the industries that qualify for consideration are various petrochemicals and fertilisers, export oil refineries, steel and aluminium smelters, natural gas liquids (NGL) plants (producing heavy gases for bottling and industrial feedstock) and liquefied natural gas (LNG) plants (producing frozen mains gas).

In deciding which of these industries to build, the oil producers consider first which plant would involve the most profitable use of their gas. A rough guide to this, which optimistically assumes Western levels of operating efficiency, has been calculated by Harvard University's T. R. Stauffer. By working back from market prices and eliminating all other costs, Stauffer has put the value of 1,000 cubic feet of gas at \$1.68 if used for refining, at \$1.20/1.00 for fertilisers, \$0.94 for aluminium smelting, \$0.89 for LNG and \$0.80 for steel.

(Petrochemical and NGL plants are not included here because they use only the heavier—and higher value—gases which have been separated out of the mixture of natural gases associated with oil production.) The planners then have to consider the market position of each product and the size of the labour force required by the different plants. This may alter the picture somewhat because even if a refinery will yield rather more profit per unit of gas than, say, a fertiliser plant, it will actually make use of a much smaller volume of gas and yield less total revenue attributable to gas. It will therefore look much less attractive when considered on the basis of "labour force employed per unit of gas consumed and revenue earned." These considerations work against steel mills as well as refineries, while they make NGL and petrochemical plants especially attractive. The outcome of these analyses in the different countries is reflected in the list of projects in the chart.

Although people normally talk of these projects as being built for the day "when the oil runs out," in practice they will be needed a lot sooner. It is highly likely that within 10 years the performance of Arabian Peninsula heavy industries in the Gulf States (as opposed to Saudi Arabia) will be having a direct effect on levels of government spending, on development policy

and on the attractiveness of the area as an export market. Initially, the industries will be called upon to act as a revenue supplement when the governments' spending rises above the level of their oil incomes, and a little later, when oil production begins to decline, they will have to begin taking over the burden of financing a major part of expenditure. The theory is that, eventually, governments would hold the production of oil and unassociated gas (gas found on its own) at a level just sufficient to run their industries (converted partly to being oil-burners) without there being any surplus of crude left for export. And at that point the industries would have to provide almost all of the countries' foreign exchange income as well as a still bigger proportion of government revenue.

Additional sources of income at each stage would be interest earned from accumulated financial reserves and domestic taxes. But governments may be reluctant to use all their interest and dividend income if they wish to maintain the real value of their foreign assets, while tax is something which the Arabian populace will find hard to accept: it is used to seeing the State as the ultimate source of all personal wealth, not as an institution which it has a duty to support.

Of course, the gradual change-over from oil to industrial income will begin at different dates in different countries. Saudi Arabia and Kuwait will be last, while Qatar, which has small oil reserves and no prospect of big oil discoveries in future, will be first. And it is no coincidence that Qatar has far more industries already under construction than any other State. In fact Qatar will need to draw a lot of its revenue from industry by 1985, which in Arabian planning terms is frighteningly soon. Bahrain, on the other hand, is already dependent on Dubai to some extent but, like Dubai, has never been a conventional "oil State". Its people's attitudes to wealth, work, and tax are very different from those of other Arab States.

BY MICHAEL FIELD

	Petrochemicals	Fertilisers	NGL	LNG	Export refineries	Aluminium	Steel
Saudi Arabia	4-C 3-D	1-A	1-A 1-C		1-A 3-C	1-C	1-C
Kuwait	1-C 1-D	1-A	1-A 1-B		2-A 1-D*		
Bahrain					1-A	1-A	
Qatar	1-B	1-A 1-B	2-B*	1-D			1-A
Abu Dhabi		1-C	1-B	1-A	1-E		
Dubai			1-B			1-B	

\* ON ONE PLANT BEING STARTED AFTER DIVISION LAST YEAR  
\*\* EXTENSION PROJECT

## MAJOR ARABIAN PENINSULA HEAVY INDUSTRIES

A Already on stream  
B Under construction/subject to firm contract  
C Design engineering/advanced studies  
D Early studies/feasibility studies



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## 6 Most of the heavy industries that have already been brought on stream... have performed disastrously.

In all countries except Bahrain and Saudi Arabia, expatriates account for between 60 per cent. and 80 per cent. of the population.

Unfortunately for the States which may one day be facing these prospects, most of the heavy industries that have already been brought on stream in the Arabian Peninsula have performed disastrously. The exceptions have been Al-Jubail in Saudi Arabia (ALBA), and the refineries and NGL plants which were built by the original oil concessionaires as part of their own integrated operations. Part of the problems has been in marketing, but most of the plants have suffered from serious technical snags caused by the exceptionally severe environment of the Arabian Peninsula—saline water supplies, dust, intense saline humidity and very high temperatures.

Even if they were to run at full capacity, the revenues generated by these heavy industries

are not much compared with the petrochemicals plants, are not revenues from crude oil exports, so high that they cannot be turned into losses by even a moderate reduction in operating levels.

Beyond this there are the problems of marketing. The NGL system of Saudi Arabia alone will eventually be as big as the present capacity of the entire non-Communist world outside North America, which means that even with substantial growth in Japanese and Third World consumption, a surplus of NGL in world markets looks more or less inevitable. Arabian petrochemical plants and refineries, in contrast, seem likely to account for quite minor proportions (2 or 3 per cent.) of day of crude oil exports—less than 1/30th of last year's Saudi production.

As for the net income of these plants, which are the figures which should really be compared with oil revenues, the forecasts vary considerably according to how the governments choose to price some of the plants' inputs—notably gas, water and electricity. The governments' decisions are extremely important to potential foreign partners—though from the point of view of the Finance Ministries it does not make very much difference whether the income comes as sales revenues from gas and services, or as dividends and tax on the profits of the plants.

There are some inputs, though, which are not dependent on government accounting decisions. In the case of steel and aluminium there are major imported raw materials, and for all plants there are high operating costs (mainly labour and housing) which according to the most pessimistic estimates may be up to 60 to 80 per cent. above normal Western levels. Likewise, capital costs may be anything from 25 to 100 per cent. more in the Middle East—mainly because of the extra time required for construction, the need to adapt technologies to the severe environment and the high costs of contractors.

Consequently the 1981 profits of the Qatar steel mill are projected at only \$23m. out of a gross income of \$115m.—despite the fact that the plant will be getting its fuel at about 12 per cent. of the market price rates obtained by Algeria for exports of similar gas. These figures, even if the \$100m. profit be a worrying prospect for the figures for the Qatar NGL and Arabian governments.

In any event, it seems that the industries of the Middle East will have a problems-laden entry into world markets. Given that even in more normal market conditions the industries' potential as revenue earners is doubtful; this must be a worrying prospect for the figures for the Qatar NGL and Arabian governments.

## MEN AND MATTERS

### The Chief's men in Mayfair

The news of last week's somewhat bizarre decision by the Transkei to break diplomatic relations with South Africa was "orchestrated" by a public relations agency in Dover Street, Mayfair. Involved in the orchestration (the term used by agency head Paul Dwyer) were Humphrey Berkeley, one-time Tory MP and now a Labour Party member, and a West Indian writer named Scobie Lowblack.

Dwyer told me yesterday that he, Berkeley and Lowblack went on a trip to the Transkei at the start of this month. While they were there, Chief Kaiser Matanzima and his Cabinet took the decision to sever diplomatic ties with Pretoria. Did the trio encourage this decision? "No," says Dwyer, "but we were not sorry."

Both Lowblack and Berkeley are paid consultants to Dwyer's agency, called Business Expansion. Dwyer does not see eye to eye with Berkeley in all matters: "I am an active Conservative and have stood as a parliamentary candidate for the party." But they are at one about the policies being followed by Matanzima—who is on the telly in them twice or more a day. When I suggested that the Dover Street office is acting as an "unofficial embassy" for the Transkei, Dwyer agreed. "We are playing a David role to South Africa's Goliath."

Broadcaster and entrepreneur Berkeley is a veteran Africanist, who likes to refer to many black presidents by their first names. The agency has retained him, it says, for his constitutional knowledge. The third member of the team, Lowblack, has close contacts with the Transkei's Foreign Minister, Digby Koyana.

### Question time

I recently gave some attention in this column to the discredited "clipboard selling" technique. It was being used by a few insurance brokers to find likely candidates—victims, perhaps one should say—for subsequent hard selling of life insurance policies. A probe into the method has also been made by the BBC's "Moneybox" programme. The Life Offices Association has expressed disapproval and there has been Ministerial criticism in the Commons. So the offending

insurance brokers have lately been declaring a change of heart. They say that clipboard selling is a thing of the past.

But is it? Winsome girls with clipboards still hang around the exits from certain Underground stations in London, to quiz emerging travellers about their views on the economic scene. The names they collect are then brought together and hawked around to whoever may want them as a "good list." So if you are stopped in the street and asked what you think of Denis Healey's 12th Budget, make sure your interrogator comes from one of the well-known opinion pollsters. Otherwise, you will shortly be on the end of some forceful telephone calls.

At the Ruhl, the roulette, blackjack and chemin de fer still go on. But Fratoni has an equally serious employee problem. Nine of the casino's croupiers have been charged with raking in from the company's till. The amount of their alleged illicit winnings is reported to be around £75,000. The management has sent out a note assuring customers that it was the casino, and not they, that was cheated.

More for less

More on the vagaries of British Rail fares. A Chelsea reader who travels up to Carlisle frequently to see his family says he had what seemed like a bright idea: He would buy a Big City Saver to Glasgow (£15 return) and get off at Carlisle. The railways told him sternly that he would have to pay a surcharge of £5.45 for wanting to travel 180 miles less. He has now decided to drive up the motorway instead.

Die now, or else

A New York mausoleum is widely advertising its burial services in the city's newspapers. Obviously, the ad. ends with a warning in heavy type: "Please Note, Our Prices Rise on April 30."

They publish two useful guides for those considering their wills; and I often commend these to clients to study in advance of consulting me. Copies may be obtained free on request by writing to: Hon. Treasurer, The Rt. Hon. Lord Maybray-King, Help the Aged, Room F75L, FREEPOST 30, London W1E 7JZ (No stamp needed).

## Questions answered about your Will

Q: In these days it is hard to estimate what I may have to leave when the time comes. I want to be fair to close relatives, but I also want to benefit a cause close to my heart. How can I best ensure both?

A: Most of us have a similar problem, with inflation. The sensible course is probably to leave fixed proportions of your estate to the individuals you wish to remember—say 20% to one, 15% to another and so on—and then the residue to the cause you wish to help.

Q: I wish to remember old people, since they seem certain to be in continued need; but their needs may change. How can I anticipate what they may be?

A: Help the Aged has a justified reputation for keeping well abreast of the needs of old people; and has pioneered a great deal of much-needed work for lonely, sick, hungry and despairing old people. Their trustees are especially careful to make maximum use of volunteers in daily touch with the elderly, thereby ensuring the most practical response to need and obtaining the utmost value for each request.

They publish two useful guides for those considering their wills; and I often commend these to clients to study in advance of consulting me. Copies may be obtained free on request by writing to: Hon. Treasurer, The Rt. Hon. Lord Maybray-King, Help the Aged, Room F75L, FREEPOST 30, London W1E 7JZ (No stamp needed).

وڪرامن النجیل



## FINANCIAL TIMES SURVEY

Monday April 17 1978

مركز من الأعمال

Society  
grappling  
with  
change

Anthony McDermott

THERE HAS rarely been a society as exposed to dramatic change, development and re-organisation as Saudi Arabia is today. The contradictions—as seen from the West—are easy to pinpoint. Physically it is a country with a small population—5m, may be too high an estimate—scattered across an area about two-thirds the size of Western Europe. It is trying to hold firmly to the basic tenets of Wahhabi Islam while absorbing the most modern technology available. It is seeking to retain a Saudi identity while being forced to depend on an extensive foreign labour staff.

There is a positive drive to improve the educational and material standing of women (XXII), that some sort of vision while continuing to deny them the logical extension of this betterment by keeping them apparently still in a status inferior to that of men. Above all, it is trying to run an increasingly complex State before the foundations of a suitably geared bureaucracy have been established.

In many ways, to list these points is an unproductive exercise because it expresses them in terms that Saudis might neither understand nor accept. First, for them the criteria on which these apparent contradictions are based are profoundly different and therefore frequently do not apply. Secondly, Saudi has hitherto been highly successful in resisting some aspects of change, in particular the movements of radicalisation which passed through the Arab world in the 1950s and 1960s.

As a result it sees no reason why the new challenges brought on by the impact of enormous

wealth should not be absorbed as well. Far from seeing itself as under siege, Saudi Arabia has a confidence about it which is often taken as arrogance.

At the same time Saudi Arabia is having to face decisions which are not just on a day-to-day basis about providing aid for this or that African State or issuing a law defining the relationship between foreign companies and local agents. It is having to decide between a whole range of long-term strategies which could profoundly affect the society and country in which Saudis live, and which if mishandled could be damaging, not beneficial.

It is in the material and economic side, as the development article points out (Page material standing of women XXII), that some sort of vision while continuing to deny them the logical extension of this betterment by keeping them apparently still in a status inferior to that of men. Above all, it is trying to run an increasingly complex State before the foundations of a suitably geared bureaucracy have been established.

Predictably, the spiritual vision is less clear. This is partly because this is a far more intimate process, not directly involving outsiders. Secondly, it is harder to quantify than how a \$142bn. development plan is to be carried out or an oil production ceiling of 8.5m barrels/day imposed. Thirdly, it is clear that although Saudi Arabia's ruler and ulama, the religious leaders, have total confidence in Islam as a guide to life, there is awareness that changes will have to come and they have yet to chart with certainty the direction to take.

It is not for nothing that the preamble to the development

plan puts the maintenance of Islamic values before descriptions of economic evolution.

Some aspects of the development plan are already having a beneficial impact. It is only just over 40 years since Saudi Arabia was unified under King Abdul-Aziz after a history of prolonged tribal strife. Traces of these differences still remain and it is significant that the National Guard is largely made up of Nejd tribesmen traditionally loyal to the house of Saud. But the provision of roads, improved telecommunications, Saudi's air links with comparative ease and services for the bedouin have all given Saudis a sense of belonging to a country with an identifiable Government, to which loyalty and patriotism should be given.

## Contrast

In contrast to this tangible gain of Saudi patriotism, which should strengthen with the years, greater economic opportunities and more widespread education contain their own potential problems. For a start they have opened the way for technocrats and business people not from the royal or traditionally influential families to come forward and demand some political recognition within a system which is almost entirely dominated by the extended royal family of some 5,000 members. It is generally held, however, that the chances of this occurring for many years are remote.

The royal family is a sophisticated machine with a wide network of contacts

through marriage which keeps it well informed about, and responsive to, public opinion. In addition, security in its own way is unobtrusive but tight and the family has no inclination to relinquish the predominant role it has developed for itself. Indeed its senior members have been trying to ensure that its members are capable of dealing with economic developments by buying them the best education abroad—mainly in the U.S.—and placing them in key posts of the Government.

Furthermore, although pockets of poverty do exist in Saudi Arabia in distant villages and shanty towns in and around the main cities, there is broad contentment with the way the Government has provided opportunities by means of its great wealth—directly in aiding the private sector obtain loans, or indirectly through helping people buy houses on cheap terms or through giving school-children free meals on a wide scale.

The armed forces, which are going through an extensive period of sophisticated development, are not seen as a threat. This is partly because the rulers of Saudi Arabia, having seen how military coups have come and gone elsewhere in the Arab world, monitor carefully what goes on in their ranks, and partly because the regular armed forces and the National Guard are set up as deliberately counterbalancing entities.

One historical feature which gives Saudi Arabia special confidence in its spiritual values is that hitherto it has not been opened to Western cultural

influences as say the Maghreb was to France, the Levant and Egypt to Britain and France, and the countries of the Gulf to Britain. Yet it is from Western influences that the most profound strains may now come, for in a new form Saudi Arabia is experiencing what those did in the last century—and in a more acute form.

The direct invasion comes from the increasing number of foreigners that have to be employed. Officially, the drive is towards Saudiisation in every walk of life, but in practice this policy is highly selective. The first reason is that there are not enough trained Saudis to do many of the jobs. Secondly, Saudis are more interested in business or in occupying senior positions than providing the working core of Ministries. One crucial effect may be to exacerbate—as decisions about the economy and social affairs become more complicated—the existing problems of bureaucracy, where few civil servants are prepared to take responsibility for their own decisions or those of others.

So far Saudi society has been successful in containing imported culture from the West. Indeed there are signs of surprising flexibility from time to time. Cinemas are officially forbidden, but private or semi-private showings are widespread, and in recent weeks a Saudi newspaper listed some of the films available, including some on the verge of soft porn, and where they could be seen.

But on the whole Saudis—in particular the men—display a singular ability to enjoy the pleasures of Western society when abroad on business, edu-

cation or holiday, and apparently to eschew those elements which are banned in Saudi Arabia on return without any real schizophrenia. This is partly because some of the banned pleasures like alcohol are obtainable for those who want it, and partly because Saudis now have unprecedented opportunities for travel abroad. But there is also an innate respect for the austere Wahhabi Islamic principles which the Government enforces.

Whether this will remain so in the long term depends heavily on education. If there is cause for concern about the future it is this sector, for while in the education Ministries and universities there are officials full of ideas about modernising curricula or running the experimental comprehensive school at Riyadh, the system itself is antiquated, held back positively by the traditions of Koranic learning and staffed largely by non-Saudi Arabs who have only a limited interest in trying to introduce new ideas. For the moment these problems ironically buy time for the conservative elements in Government who are concerned about the deeper effects of introducing more independent thinking or subjects which might undermine the fundamental role of Islam.

## Acute

The dilemma is especially acute in women's education. Illiteracy is still high among women, but those who have grasped the opportunities of education have done so with great enthusiasm. But practical

use of this learning outside the traditional roles expected within the home are still limited.

There are some signs of stirrings. A journalist writing in the weekly *Iqra* in February caused dismay by saying that Saudi women are hiding behind walls of their own making. The daily *al-Riyadh*, however, indicated the limits of this potential revolution in women's status by suggesting that one solution to the boredom women suffered from would be to make women's associations more accessible.

Resolution of most of these problems lies ultimately with Islam, which, it is often forgotten in the West, has shown in the past remarkable ability to adapt and think forward. It has, for example, one built-in protection against the growing materialism brought on by economic development in that, unlike some religions, it makes no great virtue of asceticism and poverty.

For the moment there is no obvious evidence that the preparation for these changes is in the hands of the religious equivalent of the young Saudis who obtain distinguished PhDs as a career but also on Western abroad. On the contrary, in this delicate area the Saudi Government is moving with its characteristic caution and secrecy, perhaps inspired by the fact that, under Saudi patronage, Islamic values seem to be reasserting themselves in Africa, Asia and among communities in Europe.

In the end the greatest risks of instability will come probably from the cultural invasion Arab world and face the not from outside but from the decision of choice of having to side with the Arabs against the West—probably through an oil embargo.

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Part I of this survey appeared on Monday, March 20, and contained articles on:

Politics
The economy
Defence
Capital market
Banking
Insurance
Minerals
Telecommunications
Manufacturing
Ports
Shipping
Architecture
The business world
Manpower
Expatriate life
The law
The Islamic Community
The House of Saud

example, by choosing to expand oil production (rather than keep its assets in the ground), it is able to have a deep influence not just on the future of OPEC but also on Western economies (in particular that of the U.S.).

The indications are that economically and politically Saudi Arabia is becoming inextricably tied up with the West. But if, for example, the Arab-Israeli conflict remains unresolved and threatens to turn into another war, the Saudis might inevitably be forced to abandon their role of moderation in the not from the cultural invasion Arab world and face the decision of choice of having to side with the Arabs against the West—probably through an oil embargo.

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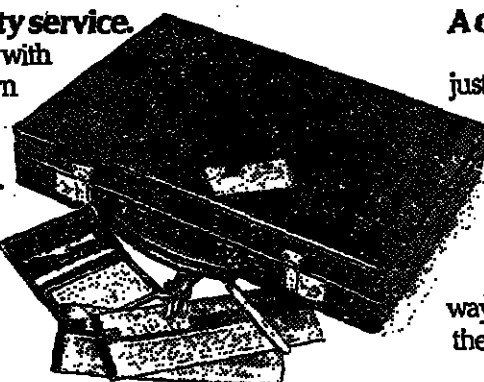


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Day	Flight Number	Arrival	London	Paris	Geneva	Frankfurt	Rome	Istanbul	Jeddah	Riyadh	Dhahran
MON	SV762	0707	11:05	12:30	13:10				14:35	15:20	
MON	SV766	0747	15:05				17:20	18:20	19:10	20:00	
TUE	SV733	0707	11:05	12:30	13:10				14:35	15:20	
TUE	SV733	0707	11:05	12:30	13:10				14:35	15:20	
WED	SV772	0707	11:05	12:30	13:10				14:35	15:20	
WED	SV770	0707	11:05	12:30	13:10				14:35	15:20	
THUR	SV704	0747	11:05				13:20	14:20	15:10	16:00	
THUR	SV704	0747	11:05				13:20	14:20	15:10	16:00	
THUR	SV733	0707	11:05	12:30	13:10				14:35	15:20	
THUR	SV776	0707	11:05	12:30	13:10				14:35	15:20	
FRI	SV772	0707	11:05	12:30	13:10				14:35	15:20	
FRI	SV770	0707	11:05	12:30	13:10				14:35	15:20	
SAT	SV766	0747	15:05				17:20	18:20	19:10	20:00	
SAT	SV772	0707	11:05	12:30	13:10				14:35	15:20	
SUN	SV772	0707	11:05	12:30	13:10				14:35	15:20	
SUN	SV770	0707	11:05	12:30	13:10				14:35	15:20	
SUN	SV766	0747	15:05				17:20	18:20	19:10	20:00	

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## SAUDI ARABIA XXII

Forecasting the size of Saudi Arabia's surplus funds has proved to be a hazardous occupation, and deploying them to best effect a task of enormous complexity. The role of the Saudi Arabian Monetary Agency — effectively the central bank — has been much misunderstood in the speculation over deployment of the surplus.

## Surplus revenue

SUFFICIENT TIME has elapsed since the oil price explosion of 1973-74 to show the longer-term forecasting of surpluses to have been not only a growth industry but a notoriously unreliable one. Pundits in institutions and banks have tended to make wrong assumptions about subsequent increases, the erosion of the real value of revenues as a result of inflation and recently the depreciation of the dollar, and the surprising absorptive capacity of OPEC members — not the least Saudi Arabia. Who would have believed three years ago that the OPEC countries as a whole would have a declining balance of payments surplus in the third quarter of 1977?

One thing, however, can be said for certain: Saudi Arabia will continue to generate a fiscal surplus for the indefinite future if it maintains oil production at a rate of 8.5m. barrels a day. Saudi Arabia is classed as one of the four long-term surplus countries together with Kuwait, the United Arab Emirates and Qatar. Having made the above reservation about forecasts, one of the more authoritative looking ones produced late last summer by the First National Bank of Chicago predicted the collective foreign assets of the four rising from \$75bn. at the end of 1976 to \$229bn. at the end of 1985, a five-year period from 1977 to 1981. Saudi Arabia's share at

the end of 1976 was, as it happened, \$50bn. In future it can be assumed that the Kingdom's portion of the four producers' collective surplus — whatever it is — will increase relative to the others. Even if it spent almost all its revenue in this period accrued income would ensure a steady growth of the country's foreign assets — though a not insignificant proportion of them, it should be stressed, do not generate high income.

For some years now the Kingdom's foreign assets deployed by the Saudi Arabian Monetary Agency (SAMA) have not been fully reflected in the reserves recorded by the International Monetary Fund. Those recorded in its monthly financial statistics rose dramatically from \$3.7bn. at the end of 1973 to \$14.3bn. at the end of 1974, \$23.3bn. at the end of 1975, \$27.0bn. at the end of 1976 and \$30.9bn. at the end of 1977. The figures for the last two years in no way reflect the official surplus generated during them.

## Confidence

An increasing proportion of the total would have been in longer-term assets which might justifiably not be classed as "international liquidity." The exact criterion for such classification has not been spelt out in detail. Certainly, the Government is very conscious of the enormity of its accumulated surplus. In practice, there is no particular mystery about Saudi Arabia's "Missing Billions" as one journal specialising in foreign exchange dramatically asserted in a boring and uninformative investigation into the question early last year.

Last month Crown Prince Fahd reaffirmed the Kingdom's confidence in the dollar, saying that it did not wish to switch to another form of currency. Considering the size of its accumulated surplus and

the limited alternative investment outlets, Saudi Arabia, like Kuwait, has little choice but to place the greater part of its foreign assets in the dollar form either in the U.S. or elsewhere. Yet there has certainly not been any formal agreement on this question as the International Currency Review reported last year.

During the last six months the Saudi Arabian Government has been badly upset by allegations that SAMA (the Kingdom's central bank) has been understating the size of its liquid foreign assets and has entered into a series of agreements with the U.S. which effectively remove a large part of its assets from its own control.

The two principal items said to be included in the agreements were that 50 per cent of the Kingdom's balance of payments surplus was to be placed in special long-term non-marketable U.S. Government paper, and that 37 per cent of the country's existing liquid cash surplus to the Government's requirements for investment in Saudi Arabia, would be placed on the long-term markets in the U.S. In fact neither of these claims makes sense on a whole variety of grounds. In particular, the first claim that a fair proportion of the balance of payments surplus is in the private sector and not under the control of SAMA at all, while the second claim is a contradiction in terms because the Government's "liquid cash" is held specifically for the purpose of spending in Saudi Arabia or to meet external commitments such as aid loans, and is therefore by definition not part of the surplus available for long-term investment.

Fundamentally, a lot of the alleged items in the secret agreements involve a misunderstanding of the role of SAMA. The Monetary Agency controls not a balance of payments surplus but a budget surplus

(which is what in Kuwait and as soon as that letter of credit is opened. It is not possible to give precise and up to date figures for these accounts, because the balance-sheets which SAMA publishes fortnightly are not to the IMF at the end of November broken down in this way. Still, for what they are worth, the Treasury bills as investments figures in the November, 1977, balance-sheet were: Government current accounts \$3.0bn., special and reserve accounts \$27.9bn., Government agencies \$8.7bn., pension fund accounts \$1.4bn., deposits of local banks \$3.9bn., other accounts \$12.8bn.

Thus SAMA's liabilities include: the current accounts of Government departments earmarked for salaries and for other current and development expenditures; Finance Ministry accounts containing sums earmarked for disbursements as aid loans or gifts; a special "IMF account" which contains money allocated to the IMF but not yet drawn upon; Government pension fund accounts (other of which are now held with the new Saudi Investment Banking Corporation); the "reserve account", which can be classified more or less as accumulated budget surpluses; local banks' deposits; the accounts of all the Government's special lending funds (such as the Saudi Industrial Development Fund), the Islamic Development Bank, Petroleum, Saudi and other State institutions; and a special "letter of credit account." This last, somewhat anachronistic, account, which dates from the reforms instituted in the late 1950s after Saudi Arabia had been virtually bankrupted by the late King Saud, holds a sum equal to the full value of all outstanding letters of credit opened by the Government for contractors — the account being credited from one of the Government current accounts with the amount of each letter of credit

is applied. The same investment policy is applied to all the funds under SAMA's control, no matter what account they are derived from. In other words cash held for budget expenditure is placed in the same way as cash from the letter of credit account and cash due to the commercial banks, and it is up to the investment department to work out the amount of the funds that must be held liquid at any one time.

## Applied

In practice SAMA's definitions of which assets are or are not liquid are rather different from the definitions normally used in the international banking community. Most important, treasury bills and other easily discountable securities, which might normally be classed as liquid assets, are regarded by SAMA as investments, because the Monetary Agency holds such enormous quantities that it would be unable to discount them on a significant scale without seriously disturbing the market.

SAMA contends therefore that it is illogical for anyone to say that it is understating its liquid assets (\$30.9bn. according to the IMF at the end of November last year) by including Treasury bills as investments. SAMA believes that it could legitimately reduce the declared total of its liquid assets further by removing the deposits it has placed with central banks in Third World countries, which it recognises are unlikely ever to be repaid at all. It could also remove its longer term CDs and many of the deposits it has placed with banks in the West, which it argues again could hardly be discounted or withdrawn without causing chaos.

For practical purposes, however, the assets put under the "reserves" heading by the IMF are predominantly CDs and bank deposits placed exclusively with banks on the Approved List. Originally this list contained just ten names (marked with an asterisk), but in recent years it has undergone two major expansions — one in 1972 when 25 names were added in a somewhat random fashion, and another in 1975 when about 17 or 18 names were added after very careful study. Taking into account four or five additions which have been made individually at different times and one or two subtractions the list now stands at something between 54 and 58 names. It is possible to be certain on all but about ten

of the names in the box.

SAMA's long-term investments, referred to in the IMF folio statistics as "other assets," are assigned to do very specific tasks issued or guaranteed by able to do from its headquarters governments or agencies of in Jeddah (it is for these governments or international organisations, loans to governments (including aid loans but not concessionary deposits with strict guidelines — although technical banks), blue chip corporate bonds, and a very small amount of equities — but no investment reach 5 per cent of the voting stock of any company.

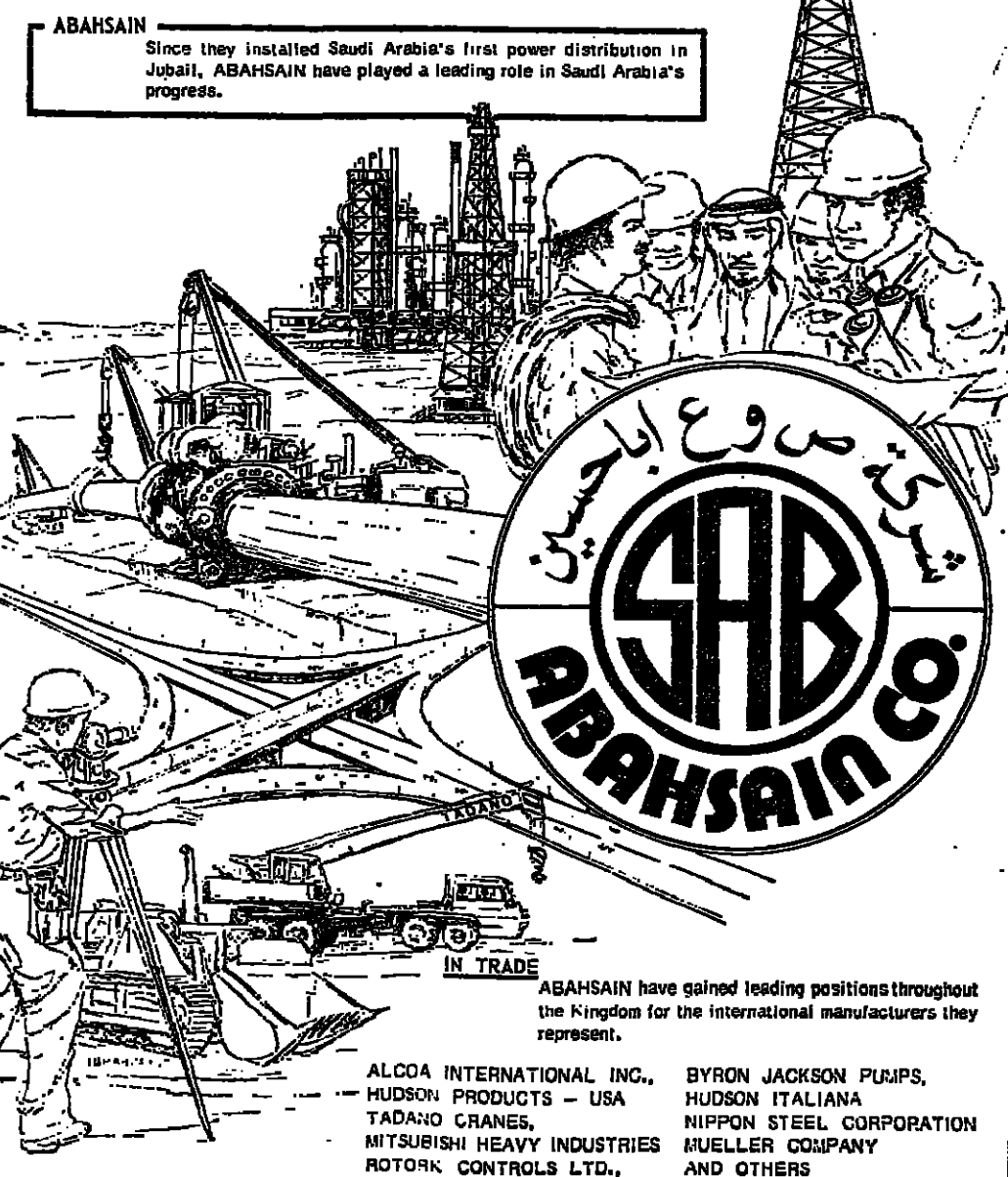
Other equities and some of the other securities are held in portfolios, possibly up to ten in number, which SAMA has opened recently — mainly with banks in the U.S. In every case the portfolios, referred to in the IMF folio statistics as "other assets," are assigned to do very specific tasks issued or guaranteed by able to do from its headquarters governments or agencies of in Jeddah (it is for these governments or international organisations, loans to governments (including aid loans but not concessionary deposits with strict guidelines — although technical banks), blue chip corporate bonds, and a very small amount of equities — but no investment reach 5 per cent of the voting stock of any company.

By Our Foreign Staff

SAMA APPROVED LIST	
U.S.	GERMANY
*Bank of America *Citibank *Chase Manhattan *Morgan Guaranty *Bankers Trust Manufacturers Hanover Continental Illinois First National Bank of Boston First National Bank of Chicago Mellon Bank United California Bank Chemical Bank Irving Trust Security Pacific	Deutsche Bank Dresdner Bank Commerzbank Westfälische Landesbank Bayerische Vereinsbank
JAPAN	
Bank of Tokyo Sumitomo Bank Dai Ichi Kangyo Bank Fuji Bank Sanwa Bank Mitsui Bank Industrial Bank of Japan	
BRITAIN AND COMMONWEALTH	
*National Westminster *Midland *Lloyds Barclays Standard and Chartered British Bank of the Middle East Hong-Kong and Shanghai Banking Corporation Bank of New South Wales Australia and New Zealand Bank	*Algemeine Bank Nederland *Swiss Bank Corporation Credit Suisse Credito Italiano Banca Commerciale Italiana Credito Bank of Brussels Banque de Bruxelles Skandinaviska Enskilda Amsterdam-Rotterdam Banque Centrale Union Bank of Switzerland
CANADA	
Bank of Nova Scotia Canadian Imperial Toronto Dominion Royal Bank of Canada Bank of Montreal	Note: Not all banks on the list have accepted SAMA deposits on the terms offered, and there are very wide discrepancies in the amounts held by different banks. Banks are not listed officially when they are placed on the list (or removed from it) and the list is not circulated among members.
FRANCE	
Banque de Paris et des Pays Bas Banque Nationale de Paris	

BASIC STATISTICS	
Area	865,000 sq. miles
Population	9.24m.
Trade (1976)	
Imports	\$R39.7bn.
Exports	\$R127bn.
Imports from U.K.	\$400m.
Exports to U.K.	\$978m.
Trade (1977)	
Imports from U.K.	\$577m.
Exports to U.K.	\$1.1bn.
Currency: Riyal	£1=\$R6.59

## A PACE SETTER for SAUDI ARABIA'S PROGRESS



ALCOA INTERNATIONAL INC., HUDSON PRODUCTS - USA, TADANO CRANES, MITSUBISHI HEAVY INDUSTRIES, ROTORK CONTROLS LTD., BYRON JACKSON PUMPS, HUDSON ITALIANA, NIPPON STEEL CORPORATION, MUELLER COMPANY AND OTHERS

IN CONSTRUCTION: ABAHSAIN engage in major road projects, water, gas and oil pipeline contracts, offshore maintenance, marine engineering and ocean development.

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TO AN outsider it may seem surprising that a country with such a vigorous and unfettered private sector as Saudi Arabia should attach so much importance to planning and its five-year development plans.

In fact, planning is virtually essential in Saudi Arabia because Government spending accounts for about 75 per cent of GDP, though the Kingdom is very different from other centrally planned economies. Planning has so far been a way of stating priorities and of reducing inflation and pressure on the economy. Now all the major infrastructure projects in the plan are at different stages of implementation.

A good example of this piecemeal approach is the fact that in the current plan no real attempt was made to add up the imports that would be needed for each section of the plan and set them against present and proposed port capacity. The infrastructure was given less emphasis than was investment in productive assets, whose establishment could only take place after that of the infrastructure.

To some extent this was due to the inadequate machinery and manpower available at the time for drawing up plans, and to the difficulty in the hectic days of the 1974 and 1975 ordering priorities in economic development. It was also due to the sheer lack of information about the economy, a result of poor economic and financial reporting, and to the novel economic situation Saudi Arabia was facing.

## Planners

The next plan, covering the years 1980-85, promises to be a more sophisticated affair. Saudi planners are already working on it and will be able to draw both a greater experience and on deeper knowledge of the economy. A firm of British consultants — Coopers and Lybrand — is building a model of the economy which will enable good input/output calculations to be made and thus give the plan a more precise and integrated structure. Already it is becoming clear that the main emphasis in the Third Five Year Development Plan is likely to be on industrial manufacturing, agriculture and services. With Shell for the first petrochemical plant (an ethane Second Development Plan plant) at Jubail, Mobil is also considerable achievement along on an ethylene facility at Yanbo.

Other petrochemical plants are planned for both complexes, where the infrastructure is now being installed. The delays in going ahead with projects are partly the result of uncertainty in the Government as to what it wants (against a background of changes in industrialisation plans by Saudi Arabia's Gulf neighbours) and hesitancy on the part of the technical partners, since the Kingdom wants them to put up 15 per cent of the capital in the form of equity and to handle marketing. The main problem, as the technical partners see it, is the higher cost of building and operating a plant in the non-industrial environment and the extreme climatic atmosphere of Saudi Arabia. The problem of marketing the output is less difficult, it is thought, provided the price is right, and provided there are no complaints from the western countries — the main market — that the Saudi plants enjoy hidden subsidies; such complaints could lead to tariff barriers being erected.

The Government has overcome the major bottlenecks in the economy, notably the ports, which has had the effect of reducing inflation and pressure on the economy. Now all the major infrastructure projects in the plan are at different stages of implementation.

In the social sector plan implementation has been uneven, with overachievement in some areas and underachievement in others. For example, more secondary schools were built in the second year of the plan than had been intended and in the same period 150 primary schools were built than the 450 laid down in the plan. In some places schools have been built in expatriate neighbourhoods whose residents would not send their children to Saudi schools anyway.

The State housing programme is only now getting underway on a large scale, a year and a half behind schedule. But the problem has been partially solved by the private sector which, financed by the Real Estate Development Fund, produced 100,000 housing units in two years — against its target of 122,000 for the full five years. But because these are for high income families the problem of housing poorer families has so far only been nibbled at.

Development has been more sluggish on the State industrial projects to which Saudi Arabia is looking to provide revenues for the future. The schedules on such projects were always tentative, but even so building work has begun on none of them. Plans for a steel industry have been progressively scaled down so that at present conceived its output would only be for local consumption, while the proposed aluminium smelter is being given little urgency. On the other hand the Saudi Government, through the Saudi Investment Banking Corporation (SABIC), is now negotiating joint venture agreements with Shell for the first petrochemical plant (an ethane Second Development Plan plant) at Jubail, Mobil is also considerable achievement along on an ethylene facility at Yanbo.

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The next plan is likely to concentrate more on agriculture than the present one. The planners believe that the potential may have been underestimated in the first plan, though a complete hydrological survey still needs to be completed before major investment decisions can be made. Agricultural development will be aimed not at raising food production but also at keeping the rural population on the land, though many officials believe that the bedouin should continue the process, giving up their nomadic life but treating agricultural

## Cautious

The Government is still cautious about the viability of the projects, which is partly why it wants the technical partners to take an equity stake (the other reason is because they are essential for the marketing operation) why it wants the Saudi commercial banks to put up about one-tenth of the capital for each project. "They will assess the projects again and will only come in if they judge them viable," says the Deputy Planning Minister, Dr. Faisal Beshir. "We are determined not to build white elephants and not to build for prestige."

All the signs indicate that as these vast projects get under way the Saudi economy will continue to grow rapidly in the next five or seven years, and at the cost of less economic strain than has been felt so far. Social strains have been far less than predicted; one of the achievements of the past three years is the way in which the highly diverse labour forces — drawn from countries as different as the U.S. and South Korea — has been absorbed with relatively little strain, partly because of the resilience of the Saudi social system which receives them and partly because of the dilution of labour by drawing it from many different sources and dispersing it all over the enormous country.

Some planners, including Dr.

Faisal Beshir, believe that it may be possible to develop Jubail and Yanbo with only minimum increases in the labour force and possibly no increase at all. Much can be achieved by making increased use of highly productive labour — such as Koreans or Taiwanese — whose output may be several times that of other workers. If extra workers are needed they can be imported directly into Jubail and Yanbo from abroad rather than increasing the pressure on the domestic labour market.

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settlement as a halfway house on the way to urbanisation.

From the progress that has been made and the plans to augment it in the future some picture of Saudi Arabia can be formed. The image in the mind of the Government planners is of a state gradually moving from dependence on oil revenue to greater emphasis on downstream petrochemical industries, while the bulk of the Kingdom's population is drawn into the cities for work in service industry and Government, with some bedouin settling in sedentary agriculture. The concept of an Islamic industrial state — which is what Saudi Arabia intends to become — may seem strange to western minds; the creation of a rather more efficient economy without much of the social disruption that had been feared makes this goal more attainable; the major question is whether the western technical partners, no doubt encouraged by the drop in Saudi inflation, can be expected to back the concept to the extent the Saudi Government considers essential.

James Buxton

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# Just a bud that has blossomed into a bouquet

**BINLADEN BROTHERS**  
for Contracting & Industry



is a Saudi Arabian company engaged in all types of civil and mechanical construction. Major turnkey projects executed since the establishment of the company in 1972 include airports, roads, bridges and utility buildings.

The company is geared to meet operating conditions throughout Saudi Arabia, and is supported by a substantial spread of wholly-owned equipment. In addition, BINLADEN BROTHERS produces and markets a comprehensive range of construction supplies and services through in-kingdom subsidiary and associate companies.

BINLADEN BROTHERS has formed joint venture companies with partners providing technological and management capability beneficial to the development of the Kingdom's infrastructure. It is BINLADEN BROTHERS' policy to seek a majority holding in such ventures, which are all carefully studied for compatibility and viability in the long term.

The company owes its success to the highly professional management of its resources, coupled with integrity and single-minded dedication to the interests of Saudi Arabia. Total work executed by the company since its inception in 1972 to end 1977 approached one billion Saudi Riyals.

## The Brothers Binladen

The name Binladen became closely associated with major Government construction projects in Saudi Arabia during the lifetime of Mohammed Binladen. The Organization he created was among the largest of its kind in the Middle East, and was entrusted with the most important civil engineering projects of its day.

The well-integrated complex of specialized operating units created and grouped together by his sons today keeps the family name at the forefront of both public and private sectors of the construction industry in Saudi Arabia.

## RESOURCES

BINLADEN BROTHERS owns and operates a comprehensive spread of plant for earthmoving, asphalt and concrete works. The value of equipment active on sites throughout the Kingdom as at mid-1977 amounted to SR 67 million. The company purchases direct from quality manufacturers and runs a stringent programme of preventive maintenance. Complete repair and maintenance facilities are established on-site for each of the company's projects. These are supported by the principal maintenance base in Jeddah which keeps continuous radio contact with the company's camps Kingdom-wide. Urgently needed spares, as well as materials and personnel, can be flown to site in a matter of hours aboard one of the company's fleet of five aircraft.

## Travel agency

To further facilitate the considerable movement of its personnel both within and outside the Kingdom, BINLADEN BROTHERS holds a controlling interest in a travel agency, Samara Travel.

## International network of offices

In addition to its offices in Riyadh and the Eastern Province, BINLADEN BROTHERS has branches in Dubai, Amman, Cairo, Beirut, London and Houston. Collectively, these serve as centres for liaison with suppliers and manufacturers, and for recruitment.

## BINLADEN AVIATION (BA)

BA is a semi-autonomous division of BINLADEN BROTHERS which operates the company's fleet of jet and turbo-prop aircraft, and provides maintenance support at its wholly-owned Jeddah facility. BA has undergone rapid expansion in recent years to meet the growth in the fleet from two in 1973 to seven in 1978, and today offers technical services to other private operators in the Kingdom.

## ARABIAN AERO SURVEYS COMPANY (AASC)

A joint venture with Hunting Surveys Ltd. (UK), AASC offers a full range of survey services including aerial photography and cartography. The company supports BINLADEN BROTHERS airport and road construction projects, and is expected to play an important role in the continuing development of Saudi Arabia's infrastructure and the exploitation of the country's vast mineral resources.

## BINLADEN BROTHERS CAPABILITY

BINLADEN BROTHERS has progressively extended its project capability by forming joint venture companies and ongoing associations with construction and engineering organizations of international standing. Supported by the substantial resources and expertise this network commands, BINLADEN BROTHERS can confidently address any construction assignment Saudi Arabia may require, regardless of its size, location or complexity.

## Al Mihadar BINLADEN Development Company

(MBDC) offers a consultancy service to companies seeking entry into the Saudi Arabian market, particularly in the construction field. The company has identified and studied a number of potential joint venture arrangements on behalf of BINLADEN BROTHERS, and has been active in their implementation.

## CONTRACTS AWARDED TO BINLADEN BROTHERS

Date awarded	Project requirement	Contract value (SR)	Date of Completion
February 1972	JIZAN AIRPORT PAVEMENTS Construction of a new 10,000 ft. runway and parallel 10,000 ft. taxiway; three lead-in taxiways, high-speed turn-off and two concrete aprons; complete AFL system and all related civil works and roadworks.	42 million	October 1973
August 1972	SECTIONS 2 & 4, JIZAN-TAIF ROAD Construction of retaining walls and rip-rap stone setting. (Subcontract to BINLADEN ORGANIZATION).	74 million	October 1973
May 1973	BISHA AIRPORT PAVEMENTS Reconstruction of main 10,000 ft. runway; new parallel taxiway; five lead-in taxiways; one high-speed turn-off; four concrete aprons, four aircraft shelters; all related civil works and roadworks.	55 million	November 1975
July 1973	TAIF-JIZAN ROAD (Road 54 Section 5)	65 million	July 1976
August 1973	AL JOUF AIRPORT (Phases I & II) Construction of a completely operational airport comprising 14,000 ft. main runway, with lead-in taxiway, concrete aprons, airport perimeter road and fence, approach road and airport road system; complete AFL system; terminal building covering 3,600m <sup>2</sup> ; fire and rescue building; power house containing three 360 KVA generators, complete with HV and LV distribution systems to the airport; water supply building and 100,000 gallon reservoir, six houses, office block, military out-structures for sixty personnel and three hangars for light aircraft maintenance.	90 million	January 1976
August 1974	BADANA AIRPORT Phase I Construction of 10,000 ft. main runway, one lead-in taxiway, two concrete aprons, complete AFL system, access roads to airport and perimeter fence. Phase II (similar to the civil specifications of Al Jouf Airport project above, excluding the military out-structures but including one hangar for aircraft maintenance).	95 million	July 1975
February 1975	JIZAN AIRPORT BUILDINGS (Phase I) Construction of terminal and cargo buildings, power house structure, water supply building and pump installation, fire and rescue building, meteorological building and guard house and military cantonment.	25 million	July 1977
August 1975	AL WEDJH AIRPORT BUILDINGS (Phase I) (Similar to Jizan Airport Buildings, above)	25 million	March 1978
January 1976	JIZAN AIRPORT PERIMETER ROAD Construction of an 8.5 kilometre perimeter road around Jizan Airport.	6.8 million	November 1976
February 1976	BADANA PARALLEL TAXIWAY Construction of a 10,000 ft. parallel taxiway, with two lead-in taxiways and airport drainage works; complete AFL system.	31 million	February 1977
February 1976	AL JOUF PARALLEL TAXIWAY (Similar to Badana Parallel Taxiway project, above).	25 million	March 1977
January 1976	MOUNA HELIPORTS Construction of 14 elevated heliports complete with lighting and passenger elevators.	18 million	November 1976
June 1977	MINISTRY OF HAJJ BUILDING Construction of a ten-storey office building for the Ministry of Hajj in Riyadh.	70 million	June 1979
October 1977	AL KHARI AIRPORT Construction of a complete airport including runway apron, lead-in taxiway, airport drainage and perimeter fence. This project was successfully completed within the contractual period of eight months.	62.5 million	April 1978
December 1977	JIZAN AIRPORT BUILDINGS (Phase II) Extension of buildings and passenger facilities with associated utility services.	66.5 million	June 1979
December 1977	WEDJH AIRPORT BUILDINGS (Phase II) Extension of buildings and passenger facilities with associated utility services; construction of a mosque and a desalination plant.	63.5 million	June 1979

## UNDER CONSTRUCTION

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**SAMARA TRAVEL**

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## PROJECT MANAGEMENT BINLADEN-Kaiser (BK)

Kaiser Engineers is one of the world's largest engineering and construction organizations. It provides a complete range of planning, engineering and construction services to governments and industry; and it has won world-wide recognition for its expertise in the design and construction of plants for aluminium, steel and cement, of facilities for mining and mineral processing, of power plants and transportation systems. Through this limited company in which BINLADEN BROTHERS has a majority holding, both partners seek to participate in the large-scale industrial projects planned for the Kingdom. It is BK's ultimate aim to transfer industrial technology to an indigenous staff organization.

## REAL ESTATE DEVELOPMENT & HOUSING BINLADEN-Kaiser-Losinger (BKL)

BINLADEN BROTHERS entered the field of real estate development in 1975 with the turnkey construction of a self-sufficient compound of 64 luxury units undertaken by BINLADEN-Kaiser and Losinger Ltd., Switzerland's largest civil construction company, as an ad hoc joint venture.

## BUILDINGS & SPECIALIZED STRUCTURES BINLADEN-EMCO (BEMCO)

BINLADEN BROTHERS partner in BEMCO pioneered the introduction of pre-stressed, reinforced, pre-cast concrete systems to the Arab World in 1960. BEMCO's turnkey contracting capability covers the design and construction of high-rise residential buildings, commercial centres, housing complexes and such public utilities as mosques, government office blocks, hospitals, hotels and sports stadia. The operational experience harnessed by the company guarantees on-time completion of any project requiring specialized concrete works.

## PREFABRICATION

The diversified construction interests of BINLADEN BROTHERS include a substantial holding in Al Fadi-BINLADEN J&P (AB J&P), a Saudi Arabian company which specializes in the manufacture and erection of low-cost pre-fabricated structures. It has successfully introduced into the Kingdom the modular system developed by the prefabrication division of the multi-national Cyprus-based J&P corporation. With its own fully independent factory in Jeddah for the production of components, plus in-house electrical and plumbing capability, AB J&P guarantees rapid erection economy and a wide choice of finishes and fittings. Projects executed Kingdom-wide include accommodation camps, offices, school buildings, showrooms and hotel extensions.

## ELECTRO-MECHANICAL ENGINEERING & SUPPLY BINLADEN-Saxsons Electro-mechanical Company (BSEM)

BSEM is a joint venture company formed between BINLADEN BROTHERS and Saxsons Climate Condition Co., one of the most experienced firms of electro-mechanical engineers in the Middle East. The BSEM team of 20 graduate engineers is supported by a staff of over 130 specialized technicians and administrative personnel. Headquartered in Jeddah, the company has a self-sufficient complex comprising stores, accommodation facilities and workshops which are duplicated in Alkhobar. A Riyadh liaison office rounds out BSEM's Kingdom-wide service capability, which covers the study, design, supply, engineering and maintenance of large-scale turnkey electro-mechanical installations.

BSEM has the exclusive distributorship in Saudi Arabia for Trane Company (USA), one of the world's leading manufacturers of air conditioning equipment. The company also has distributorship arrangements in the Kingdom for KeepRite window-type room units, Remington floor-type incremental units, Baltimore air coils, Powers regulators and Kone-Westinghouse elevators.

Within its first year of operation, BSEM turned over more than SR 50 million; as at end 1977, work under execution exceeded SR 150 million. Among the varied projects to which the company has contributed are the airports serving Al Jouf, Wedj, Badana and Jizan; and the ITT tel-exchange buildings in Jeddah, Riyadh, Alkhobar, Dammam, Taif, Mecca, Medina and Qatif.

## TELECOMMUNICATION ENGINEERING & SUPPLY

The telecommunication arm of BINLADEN BROTHERS is BINLADEN Telecommunications Company (BTC). Through selective representations, its supply and installation capability ranges from small key systems through 7,000-line electronic and digital PABX's to power and telecommunication cabling of technologically advanced design. Principal among BTC's exclusive representations in Saudi Arabia are Bell Canada and its manufacturing affiliate Northern Telecom, which together provide 80 per cent. of Canada's telecommunication services and equipment. Backed by the resources of these companies, and those of Bell-Northern Research Centre in Ottawa, BTC is well placed to participate with other BINLADEN BROTHERS operating units in the implementation of large Government telecommunication schemes. Among the major projects to which BTC has already contributed are New Jeddah International Airport (microwave, radio and 1,000-line telephone switching); King Abdul Aziz University (radio and 1,000-line telephone switching); and Islamic Jeddah Seaport (radio and 3,000-line telephone switching).

After-sales servicing and maintenance support are provided by factory-trained engineers at BTC's offices in Jeddah, Riyadh and the Eastern Province.

## TRAFFIC ENGINEERING Saudi Traffic Safety (STS)

BINLADEN BROTHERS partner in Saudi Traffic Safety (STS) is the world's largest highway marking company. Pioneers in traffic engineering for over 25 years, Prismo Universal have developed an outstanding range of techniques and materials through which STS seeks to promote safety on the roads of Saudi Arabia.

## SUPPORT INDUSTRIES

To ensure the continuous availability of basic construction supplies in Saudi Arabia, BINLADEN BROTHERS has developed a wide range of support industries, notably in the Jeddah area. Besides satisfying the requirements of BINLADEN BROTHERS projects, these industries generate a surplus which is sold on the open market. In nearly all cases, they have been pioneering ventures for the Kingdom. BINLADEN BROTHERS has approved plans to establish a central industrial estate at Kilo 18 on the Jeddah-Mecca Road where the majority of these industries are to be relocated by 1980.

## BRICK MANUFACTURE

The BINLADEN BROTHERS brick factory, the first of its kind to be established in Saudi Arabia, is located to the east of Medina near abundant supplies of prime clay and sand. Its annual capacity is 11 million units on a single-shift basis. Output comprises a range of kiln-fired hollow bricks in addition to heavy duty solid bricks and concrete bricks for decorative purposes.

The quality of the product, claimed to be the highest in the Kingdom, is attributable to a number of factors: the use of the finest raw materials; the company's long experience in the field; the rigid control exercised at all stages of production from clay vibration to kiln firing; and the efficiently-run semi-automatic plant, owned and managed entirely by BINLADEN BROTHERS.

## BINLADEN BROTHERS aluminium factory

located at the company's industrial site near Jeddah, manufactures anodized aluminium doors and windows to British Standard Specifications under licence to Crittall Windows Ltd. (UK). The modern 2,500 square metres factory, the first of its kind in the Kingdom to be geared to mass production, has a capacity of 85,000 square metres a year on a three-shift basis.

## AGGREGATE PRODUCTION

The BINLADEN BROTHERS aggregate division is the largest in the Middle-East. Its wholly-owned resources include six complete crusher sets with capacities ranging from 300 tons/hour to 350 tons/hour, a fleet of transporters, water tankers and trucks, and a spares and maintenance department for technical support. The division's operational experience in many parts of the Kingdom facilitates the smoothly co-ordinated mobilization of these resources in locations determined by thorough site investigation and laboratory analysis.

## READY MIX CONCRETE PRODUCTION

BINLADEN BROTHERS has a major shareholding in Ready Mix Saudi Ltd. (RMS), a joint venture with Redland Ready Mix, one of the UK's major producers of ready-mix concrete. RMS pioneered the introduction of ready-mix concrete on a commercial basis in Saudi Arabia. Delivery to site as required of concrete to controlled specifications and of guaranteed strength won the instant approval of contractors. The RMS service helps maintain project performance in the face of spiralling costs, demanding completion targets and skilled labour shortages.

The company's fleet of vehicles deliver to both large and small contractors within a fifteen kilometre radius of the Jeddah-based RMS plants. A Schwing concrete pump with a 50m<sup>3</sup>/hour capacity supplements the fleet for deliveries where access is difficult.

## DOORS AND PARTITIONS

In a joint venture with Bruynzeel (Holland), BINLADEN BROTHERS will produce quality wood doors, kitchen units and internal partitions in a factory located near Jeddah. The factory will be the largest of its kind in the Kingdom with an annual single-shift capacity of 200,000 doors.

## SCAFFOLDING FABRICATION

BINLADEN BROTHERS has a controlling interest in the National Scaffolding Company (NSC), a Saudi Arabian company formed jointly with Tower Al Faleim Scaffolding (UK). The carefully studied venture will be the first in the Kingdom to supply locally finished scaffolding elements from its factory near Jeddah, where start-up is programmed for 1978.

## PERLITE SUPPLY

Through Saudi Perlite Company (SPC), a joint venture in which BINLADEN BROTHERS has the majority holding, the benefits of perlite are to be introduced into Saudi Arabia. BLE's partner in this venture owns the largest perlite mines in Europe, a guarantee of continuous supply.

This naturally occurring mineral, once treated under high temperature, provides the cheapest form of insulation known. In addition to its immense value to the Kingdom's construction industry, processed perlite has important applications in unrelated fields such as agriculture and pollution control.

Marketing of imported ready-processed perlite began end 1977, and SPC plans to meet the demand that the introduction of this remarkable product has created by establishing its own plant in the Kingdom by end 1978.

## TRADING

The trading arm of BINLADEN BROTHERS developed out of the company's requirement for large quantities of construction elements and materials. The division supplies the parent company and its affiliates and subsidiaries, in addition to the open market.

Availability of stock for on-the-spot inspection and immediate supply, together with installation capability and maintenance back-up, have found a ready market for the BLE trading division among clients who have traditionally been obliged to deal with remote suppliers.

Where viable, the exclusive agency agreements formed with principals can lead to joint venture arrangements for the in-kingdom manufacture of these products under licence.

## STRUCTURAL STEEL

BINLADEN BROTHERS imports structural steel elements under an exclusive agency agreement with Varco Pruden (USA) and undertakes the erection of warehouses, factories, maintenance facilities and buildings throughout the Kingdom. In 1978, BINLADEN BROTHERS supplied elements covering a total of 100,000m<sup>2</sup>; by 1979, it is expected that the annual total will exceed 200,000m<sup>2</sup>.

## FENCING

BINLADEN BROTHERS has the exclusive agency in Saudi Arabia for Heras Hekwerk (Holland), manufacturers of a range of fencing materials. Major supply and erection contracts that have been carried out with Heras products include fencing for airport perimeters, industrial complexes and schools.

## SUSPENDED CEILINGS

As exclusive agents in Saudi Arabia for Alphacoustic (France), BINLADEN BROTHERS stocks, supplies and fits a wide selection of quality suspended ceilings.

## FURNITURE

Turnkey projects undertaken by BINLADEN BROTHERS involving the supply of furniture led to an exclusive agency agreement for Saudi Arabia with Pander Projects (Holland). A company active world-wide, Pander designs and manufactures standard and luxury furniture for numerous applications, including offices, official residences and public utilities such as airports and hotels.



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## SAUDI ARABIA XXIV

As well as oil, Saudi Arabia is sitting on enormous reserves of natural gas. It is hoped to use these both for export and to fuel industrial installations at Jubail and Yanbo, but the Government has still to make up its mind about the scale of these projects.

# Gas gathering

NOT CONTENT with being the world's largest exporter of crude oil, Saudi Arabia has now embarked on an ambitious project which should earn it the same role in natural gas liquids (NGL). Aramco is supervising a gas-gathering project—one of the largest industrial enterprises in the world ever taken on—in the Eastern Province. By the mid-1980s the aim is that Saudi Arabia should not only be providing exports, but also fueling its industrial areas in Jubail on the Gulf and—linked by a 1,270 km pipeline being built by Petromin and Mobil—its counterpart at Yanbo on the Red Sea.

Saudi Arabia's gas reserves at the beginning of this year, according to the Oil and Gas Journal, were 85,000bn. cubic feet. Saudi Arabia produces almost exclusively gas associated with crude oil, and therefore its production levels reflect closely those of oil. About three-quarters of its production until recently has always been flared off. Aramco has two limited natural gas fields in the Kidan field beneath the Rub al-Khali (the Empty Quarter) and a small deposit in Khuff limestone of the Permian era underneath Dhahran.

Aramco already has a gas-gathering system drawing on its operations in southern oil fields.

Some is used for reinjection into oilfields, some for local fuel, and some is piped to the Saudi Cement Company plant at Hofuf. Other gas is gathered into a collection centre at Abqaiq where it is separated into NGL and pumped to the fractionation and treating plant at Ras Tanura, and into methane as feedstock for the SAFCO fertiliser plant and industrial facilities at the Ras Tanura refinery.

In 1976 Aramco produced 67.6m. barrels of NGL (184,776 barrels/day) and the capacity of its facilities now stands at 320,000 b/d with exports amounting to between 200,000 and 250,000 b/d. The increase comes as a result of a new NGL construction and processing plant at Berri coming on stream last October. Its principal contractor was Fluor. This treats high-pressure gas from a gas-oil separator plant and is designed to recover 52,000 b/d of NGL from a gas throughput of 600m. cubic feet/day. Initially its production was in the range of 400m. cfd (reflecting a crude oil production of between 900,000 and 1m. b/d from the Berri field). Initially it separates the gas into two streams—one NGL for Ras Tanura and the other high quality residual gas to be used as an industrial fuel.

One more stream is to come, of ethane to Ras Tanura. Later, under an expanded programme of throughput from additional fields—Qatif, Khursaniya, Fadili and Abu Hadriya—it will increase its handling to 80,000 b/d. According to the Nicosia-based Middle East Economic Survey (MEES) Aramco's production—on the basis of a level of 300,000 b/d—was divided between 125,000 b/d propane, 90,000 b/d butane, and 85,000 b/d natural gasoline.

## Changes

The major gas-gathering project has undergone some considerable cost changes since, in May 1974, Petromin, the State oil and mineral resources organisation, first decided to conduct studies on it (under taken by Texas Eastern Transmission Co. of Houston). Originally projected to cost \$55bn. it was revised upwards at the end of 1975 to \$10bn. and then again to \$16bn. in 1976. This was partly as a result of raising capacity from 3.5bn. cfd of associated gas input to 5.5bn. cfd (or to gas quantities produced from an oil production level of 12m. b/d) and also from the addition of the Yanbo fractionation plant and the trans-peninsular pipeline.

Since then, however, an addi-

tional number of uncertainties have been introduced. First, the Government has not yet decided on the full scale of the industrial projects at Jubail and Yanbo which would be using the gas gathered for fuel. Second, it is not firmly established what long-term oil production capacity level the Government intends. Third, if the 65 per cent. ceiling on Aramco's off-take of light Arabian crude is maintained (as announced earlier this month), there will have to be further variants on the levels of oil production, for in broad terms lighter crudes produce more gas per barrel than other grades.

Fourth, there has been some change in the size of operations. Originally, the project was to collect all the gases of major fields, but now production from the northern offshore fields of Safaniyah, Marjan and Zuluf has been postponed indefinitely. This is partly because offshore production would be more costly (up to \$6bn. for the three fields, according to sources in Aramco) and because production from these fields would represent in any case only between 10 and 15 per cent. of gas reserves.

In broad terms, the project, for whom the main contractors are Fluor, Bechtel and Ralph

Redec-Dallim (South Korean), Foster-Wheeler (U.S.) and Arinco and Safami, two Saudi-based companies, now stands to have built beside the existing Aramco system new NGL processing and conditioning centres at Uthmaniya and Shedgum (both on the Ghawar field) and at Safaniyah. Plans for centres at Khurais and Abqaiq have been indefinitely postponed.

At present, besides the completed plant at Berri, the construction of recovery plants at Shedgum and distillation and export plants at Ju'aymah is expected to be completed in 1980, for operation in the middle of that year. The building of the gas plant at Uthmaniya has reached the stage of the site levelling and at the Yanbo distillation plant site levelling is to begin in the middle of 1978. They are both expected to be in operation at the end of 1982.

In the operation of the project, after the separation of the NGL and desulphurisation, the gas is to undergo compression and partial fractionation to produce a dry gas stream and a wet liquid gas stream. The former (methane) is to be used as fuel and feedstock by Aramco and by the petrochemical industries, notably at Dammam and Jubail. The wet stream—

moved to fractionation plants at Ju'aymah to produce propane, butane and natural gasoline for exports and the ethane would be pumped to Jubail for feedstock.

The final input is reckoned a 5.5bn. cfd of associated gas but at present only 4bn. cfd could be captured of which 2.5bn. cfd of residual gas would be used for industrial fuel, while 750m. cfd would be used for gas injection and the same quantity for flaring. It is also to produce 400 b/d of ethane, 850,000 b/d of NGL and 4,000 tons/day of sulphur (all below the original estimates for the final production). However, it is still reckoned, as schedules slip by reflecting changes in official assessments of oil production levels and the demands of potential users, that costs of the whole mammoth project could be as high as \$20bn. Aramco expects a final decision within a few weeks.

Anthony McDermott

Refineries, petrochemical projects, cement factories, aluminium smelter, fertiliser plants and an iron and steel complex are some of the public sector projects under consideration or being implemented. The private sector is also active, especially in joint ventures with foreign companies.

## ISLAMIC CALENDAR

This is based on the Hijrah, the migration of Prophet Mohammed from Mecca to Medina which took place on July 16, 622 AD, which is year one in the Islamic Calendar. It is the official calendar in Saudi Arabia. The Calendar is lunar, and each year has 354 or 355 days, the extra day being intercalated 11 times every 30 years.

There are twelve months:

1. Muharram	30 days	7. Rajab	30 days
2. Safar	29 days	8. Shaaban	29 days
3. Rabi' I	30 days	9. Ramadan	30 days
4. Rabi' II	29 days	10. Shawwal	29 days
5. Jumada I	30 days	11. Dhu'l-Qa'da	30 days
6. Jumada II	29 days	12. Dhu'l-Hijja	29 or 30 days

The Hijri year begins on the day of the month indicated:

ISLAMIC	CHRISTIAN
1390	1970 March 9
1391	1971 February 27
1392	1972 February 16
1393	1973 February 4
1394	1974 January 25
1395	1975 January 14
1396	1976 January 3
1397	1976 December 23
1398	1977 December 12
1399	1978 December 2
1400	1979 November 21
1401	1980 November 9

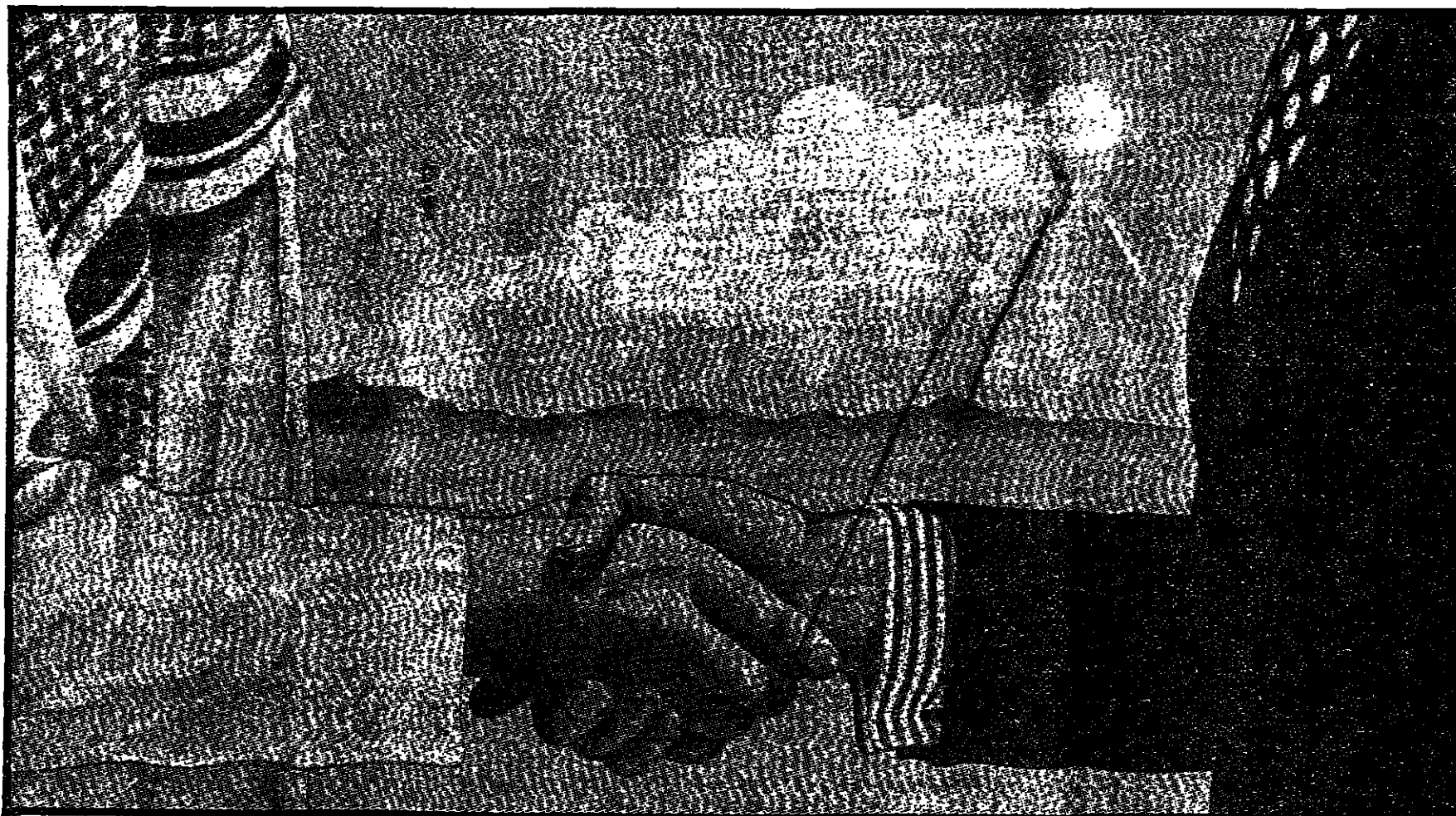
Festival dates are determined by the moon, and there are many local differences. It is therefore advisable to avoid them (especially Id al-Fitr) by some days both before and afterwards.

Mouled al-Nabi (Prophet's birthday)	February 20
Leilat al-Miraj (Ascension)	July 3
Ramadan begins	August 4
Id al-Fitr (end of Ramadan)	September 4-7
National Holiday	September 12
Id al-Adha (Feast of the Sacrifice)	November 11-14
1st Muharram	December 1
Ashoura	December 12

## FINANCIAL YEAR

This is of 12 months' duration, but begins in Rajah, the seventh month of the lunar Hijri year. Thus, the year 1396-97 lasted from June 23, 1976, until June 17, 1977, and the year 1397-98 will last from June 18, 1977 to June 7, 1978.

## What makes two into one?



The Arab world is the richer for a new and powerful bank, the Albank Alsaudi Alhollandi. As the name suggests the Saudis and the Dutch have joined forces to create a new bank. This marriage of Dutch international banking expertise and Arab wisdom and influence promises to bring many benefits to Saudi Arabia.

The Dutch partner in the new bank is Algemene Bank Nederland which has been in business for 150 years and has already been established in Saudi Arabia for 50 years. In addition, the ABN-Bank has vast know-how throughout its offices in 40 countries on the five continents.

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## Heavy industry

ONE DREAM at least in Saudi Arabia came true last week. The manager of Al Hofuf cement factory, Mr. Mohamed Hossari, who has worked for 20 years for the privately owned Saudi Cement Company, saw the commissioning of the \$170m. expansion which makes the plant by far the biggest producer in the country and the most modern in the Middle East.

"It really is like a dream come true. When I came here in 1958 there was nothing but desert. When we went into production in the 1960s I never thought we would have all this," he said, pointing to a plan of the integrated computer control system. The SR600m. investment in the latest West German equipment means that one man in the cool gleaming computer room will be able to monitor the entire operation, from the limestone quarrying to loading trucks or trains with bagged cement. The plant will soon produce 4,500 tons a day, equivalent to 1.4m. tons a year, which is twice the combined production of the two existing plants at Jeddah and Riyadh.

Al Hofuf is a dream turned to reality, but industry elsewhere in Saudi Arabia remains confined for the most part to plans for the future. The Kingdom is desperately ambitious to build up its heavy industry and is determined to become a major petrochemical producer.

Among projects now at various stages of discussion with different potential technical partners are: an export refinery and petrochemical complex at Yanbo on the Red Sea (Mobil); an export refinery and petrochemical complex at Jubail (Shell); three further petrochemical complexes (Exxon, Dow Chemical and Mitsubishi); another refinery (Caltech); two methanol plants; two nitrogenous fertiliser plants; an aluminium smelter; and an iron and steel complex. These projects are divided between SABIC, the Saudi Arabian Basic Industries Corporation and Petromin, the General Organisation for Petroleum and Minerals.

The private sector also has ambitious plans, though entrepreneurs have been slow to move into heavy industry, eschewing huge capital outlays and the longer wait for a return on investment. The Saudi Cement Company anticipates that the Kingdom's 5m. tons consumption of cement last year will rise to 10m. tons by 1980 as indicated in the five year plan. It is setting up a Saudi-Bahraini company which will produce 6,000 tons of cement a day at its first stage in 1979, the plant being built north-east of Al Hofuf.

Planned private sector plants which involve such entrepreneurs as the Alireza family, the Ankari family and Ghalth Pharoan's company, Redec, are

## DOUGLAS IN SAUDI ARABIA

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R.M. DOUGLAS CONSTRUCTION LTD. in co-operation with OMAR K. AL-ESAYI OFFICE is building a new headquarters at Jeddah for the Department of Civil Aviation, illustrated above. This team is available for civil engineering and building contracts, including design and construct contracts, throughout the country.

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هكذا من العمل



As the world's second biggest oil producer—after Russia—and the largest exporter, Saudi Arabia has a strong voice in the councils of OPEC. It has used this, successfully, to urge moderation in price increases. In the Kingdom itself discovery of new reserves continues to outstrip the physical offtake.

## Oil production

SAUDI ARABIA last December once again emphasised its key role in the Organisation of Petroleum Exporting Countries (OPEC) by forcing its fellow members at the Caracas meeting—notably including the Shah—to adopt its line that there should be no price rises for another 12 months. This is additionally in the face of the dollar's weakening. Saudi Arabia has said on several occasions that it was not out to abandon the dollar as a means of oil payments, but like others it is studying the relationship between the dollar and Special Drawing Rights of the IMF as an alternative method of payment.

At Doha in December, 1976, Saudi Arabia had again played an important role, as it can as second world producer after the Soviet Union and largest exporter, at an OPEC meeting by holding out, with the United Arab Emirates (UAE), for a 5 per cent price rise against the other 11 members who wanted an initial 10 per cent rise followed by another 5 per cent later in 1977. In June a compromise was reached whereby the 11 upper tier agreed to forgo the extra, and Saudi Arabia and the UAE agreed to ring their prices up to 10 per cent more than those prevailing at the time of the Doha conference.

### Circles

The Saudi Government announced it would raise its oil production ceiling from 8.5m. barrels/day to 10m. b/d to ensure there was sufficient oil in the market to keep prices down. However, Saudi Arabia is only partially successful in this, which led to some controversial and unproven accusations—reflecting on Aramco's chemical abilities—about water encroachment into wells, salt-water corrosion of pipelines, and a

drop in reservoir pressure. These have been firmly and convincingly denied (although corrosion is known and admitted to be a long-standing local problem). However, it is the view in some diplomatic circles that where Aramco might have been at fault was in not keeping the Saudi Government informed that it could not keep production on a sustained basis at the required 10m. b/d ceiling because of technical bottlenecks, even though the installed hardware is there.

It has to be added that Aramco had some serious misfortunes. During the first two months of 1977 bad weather hampered loading at the terminals, and in May a fire damaged pipelines and a key pumping station in the Abqaiq field, the third largest, which resulted in the loss of between 2 and 3m. b/d and damages of around \$100m. In September, Sheikh Ahmed Zaki Yamani, the Minister of Petroleum, announced that production was to be limited to a 8.5m. b/d ceiling, which is being sustained throughout this year. Nevertheless, production in 1977 totalled 9.20m. b/d, of which the contribution of the Arabian-American Oil Company—Aramco—was 8.02m. b/d; the remaining 1.18m. b/d came from Getty Oil Company and the Arabian Oil Company, operating respectively onshore and offshore in the Neutral Zone shared with Kuwait. This marked a rise in total production of 7.3 per cent over the level of 1976, which was 8.58m. b/d. Production levels in January had fallen to 8.96m. b/d, but it is estimated that an annual level of 8.5m. b/d will bring in an income of about \$35bn.

Apart from an average of about 550,000 b/d reserved for refineries, all Saudi crude oil production is exported. In 1976, Japan was the main importer with 19.3

per cent of the total, followed by France with 12.33 per cent, Italy on 6.9 per cent, Holland with 5.3 per cent, the U.K. with 5.1 per cent, and the U.S. (whose dependence has since increased considerably) with 4.68 per cent.

### Decisions

The Kingdom faces some difficult and fundamental decisions about its long-term production policies. Because of the lead time of about ten years required for the development of new large-scale energy projects, a decision will soon have to be made. Basically, Saudi Arabia has to decide whether it should raise its oil producing capacity to meet the rising demands of the West during the next decade. The ramifications of such a decision are obviously as political as they are economic and impinge on the search for a solution to the Arab-Israeli conflict, the development of the West's economy and Saudi Arabia's ability to call the tune in OPEC.

The country's current economic requirements are for income deriving from not much more than 6m. b/d, and projections of demand as required by the U.S. have been put as high as 16m. b/d (the U.S. is convinced that this could be achieved by the investment of \$20bn. and by maintaining reservoir pressures partly by the reinjection of natural gas and secondary recovery). Saudi Government plans aim at present at raising production to about 14m. b/d by 1983, but there is a growing conservationist lobby in senior circles. Saudi Arabia's reserves, according to Aramco, are 110.2bn. barrels proven (that is recoverable with present technology) and 177.5bn. barrels probable. The Government estimates the proven reserves higher at 151.4 bn. barrels.

Last month Sheikh Yamani

announced that a 65 per cent ceiling would be imposed on the proportion of Arabian Light crude offtake by Aramco. The average blend of Saudi crude has four components: Arabian Light (between 32 deg and 36 deg API, mainly from the Abqaiq and Ghawar fields—about 70 per cent of production), Berri (another light crude of 38 deg API named after the oil field itself—up to 9 per cent); Arabian Medium (29 deg-31 deg API drawn from the Khursaniyah, Abu Safah, Qatif, Zuluf and Marjan fields—between 3 and 5 per cent); and Arabian Heavy (26 deg-28 deg API from the Safaniyah field—between 10 and 12 per cent). However, the proportions of production do not coincide directly with estimated reserves of these different blends, which are believed to be Arabian Light and Berri about 60 per cent; Arabian Medium 15 per cent; and Arabian Heavy 25 per cent. In imposing this ceiling on Arabian Light, one aim is to conserve reserves, but at the time of the announcement Sheikh Yamani also said that other light producers in OPEC were having difficulty selling their oil. This move has been taken as a conciliatory gesture to encourage other OPEC members to adhere to the general Saudi-led drive for not raising oil prices this year.

At the same time, Saudi Arabia, with other medium and heavy producers such as Iran, Iraq, Kuwait, and Venezuela, met in Geneva at the beginning of February to study the differentials in prices between those crudes and light crudes with a long-term view to enticing consumers to switch from the less plentiful lighter crudes. Although the days of discovering huge fields on the scale of Ghawar (241 km. long and 35 km. wide and with reserves estimated at 68bn. barrels), Safaniyah (offshore, with reserves estimated at 25bn.

barrels) or Abqaiq, are over, Saudi Arabia continues to increase its reserves each year by discovering more oil than it produces. Aramco has currently about 26 exploratory rigs operating but has not reported the discovery of new fields since Suban, Sharar (both onshore) and Hasbah (offshore). Of 37 fields, production is coming only from 15 at present with the main producers: Ghawar (more than 5m. b/d), Safaniyah (nearly 1m. b/d), Abqaiq (over 750,000 b/d) and Berri (over

500,000 b/d). Of Marjan and Zuluf (offshore), which were shut down in 1976, the latter has been brought back on stream, increasing considerably the production of medium crude. The former is expected on stream shortly.

To maintain levels of productivity, Aramco has for 24 years been injecting gas to keep up reservoir pressure. On average 350m. cu. feet/day (out of a total capacity of 400m. cu. feet/day) are injected together into the Ghawar and Abqaiq fields. Existing water injection volumes are into Abqaiq 1.2m. b/d, Berri 1.3m. b/d, Ghawar 4.2m. b/d, Uthmaniyah, Sheddum and Ain northern area seawater is to replace the current 4.2m. b/d of subsurface water). Hawiya, 800,000 b/d, and Khursaniyah 80,000 b/d. The first phase of a huge seawater injection plant—the largest in the world—is to come into action at Ras al-Qurayyah on the Gulf in June at the rate of 2.7m. b/d initially, and then 1.5m. b/d with the intention in the early 1980s of reaching 12m. b/d—at a total cost of \$1bn.

For some time now, negotiations for the full takeover of Aramco (currently 60 per cent owned by the Saudi Govern-

ment, 12 per cent each for Social, Texaco, and Exxon and 4 per cent for Mobil) have been in their final stages. Under the terms of a "general accord" reached in March, 1976, it was agreed that after the 100 per cent takeover, the four companies would continue to run oil production operations for the Saudi Government and would be paid an administrative fee of 21 cents/barrel made up of 15 cents as operating fees and 6 cents as exploration fees. They would continue to lift the bulk of the crude produced at the market price set by the Saudi Government and put their own risk capital for exploration in Aramco's concession. In the event of an oil discovery, the Government would repay the companies their outlay plus a specific fee per barrel of discovered oil and a corresponding additional allocation of crude entitlement. Aramco, from a concessionaire company, would become a service company operating in the oil sector as well as in such other sectors as gas exploitation, electrification of the Eastern Province and the execution of certain industrial projects. Compensation to the four groups for their equity share may amount to \$1.5bn.

A.McD.

treading carefully as they reach the stage of doing the detailed costings and marketing studies. It is no secret that the international oil and petrochemical industry is in a state of considerable alarm at the prospect of Saudi Arabia entering a market which may be saturated by the time projects come on stream. Saudi strategy is to give foreign companies a large stake in the programme, not just as managers and market advisers but as equity participants. Government planners know that if Western nations move on the defensive to protect their own petrochemical industries, future viability will depend on the backing and involvement of the international companies.

Critics in the petrochemical industry point to the following marketing issues: the local market for Saudi products is tiny compared to investment and output; regional rivals like Iraq and Iran and other Gulf states are pursuing their own petrochemical developments, the world market is dominated by Western industrial nations which could ill afford the entry of a newcomer, particularly if Saudi Arabia manipulated profit margins by juggling with feedstock costs and invisible subsidies. The companies in the joint ventures want to make certain that their planned products would not be uncompetitive on the free market because of unacceptable levels of productivity and high cost maintenance.

## Industry

CONTINUED FROM PREVIOUS PAGE

examining the market mainly for the ethylene-based range of petrochemical derivatives. (Ethylene gas is the major starting point for a series of petrochemical derivatives from plastics to pharmaceuticals.)

Last month an agreement was signed in Houston, Texas, establishing the SABIC Celanese Company, a joint venture with Celanese Chemical and Texas Eastern. Detailed feasibility studies will continue for a plant in Jubail to produce 2,000 tonnes a day of methanol from which building materials, glues, solvents and anti-freeze can be made.

This followed a feasibility study agreement last year for the Sabic-Japanese Consortium (Methanol Project), a joint venture with Mitsubishi Gas Chemical Company, C. Itoh and W. R. Grace, with a view also to producing chemical grade methanol using methane as feedstock.

Further advanced is a 50-50 joint venture with Mobil Oil, called SABIC-Mobil Petrochemical, which is proposing to construct an ethylene based complex at Yanbo. The product mix from this plant is planned to be low density polyethylene (300,000 tonnes/year), ethylene

glycol (200,000 tonnes) and styrene (320,000 tonnes). Benzene for styrene production will come from an adjacent refinery.

SABIC-Dow Petrochemical hopes to construct a 400,000 tonnes/year operation with a product mix including low density polyethylene (200,000 tonnes) and ethylene glycol (300,000 tonnes). SABIC-Exxon Petrochemical is aimed at a 240,000 tonnes low density polyethylene plant.

### Pinned

Metallurgical hopes are pinned on two projects, an iron and steel plant and an aluminium smelter. SABIC has signed an agreement with Korf Stahl for a joint venture which could produce 800,000 tonnes/year of iron by the direct reduction process if the current evaluations prove satisfactory. Imported iron would be used to produce sponge iron which would be mixed with locally available scrap to produce steel billets. The export potential is currently being examined. A political stake in pursuing plans for a petrochemical revolution, contract between the Department of Minerals and British Steel Corporation has been joint venture oil companies are

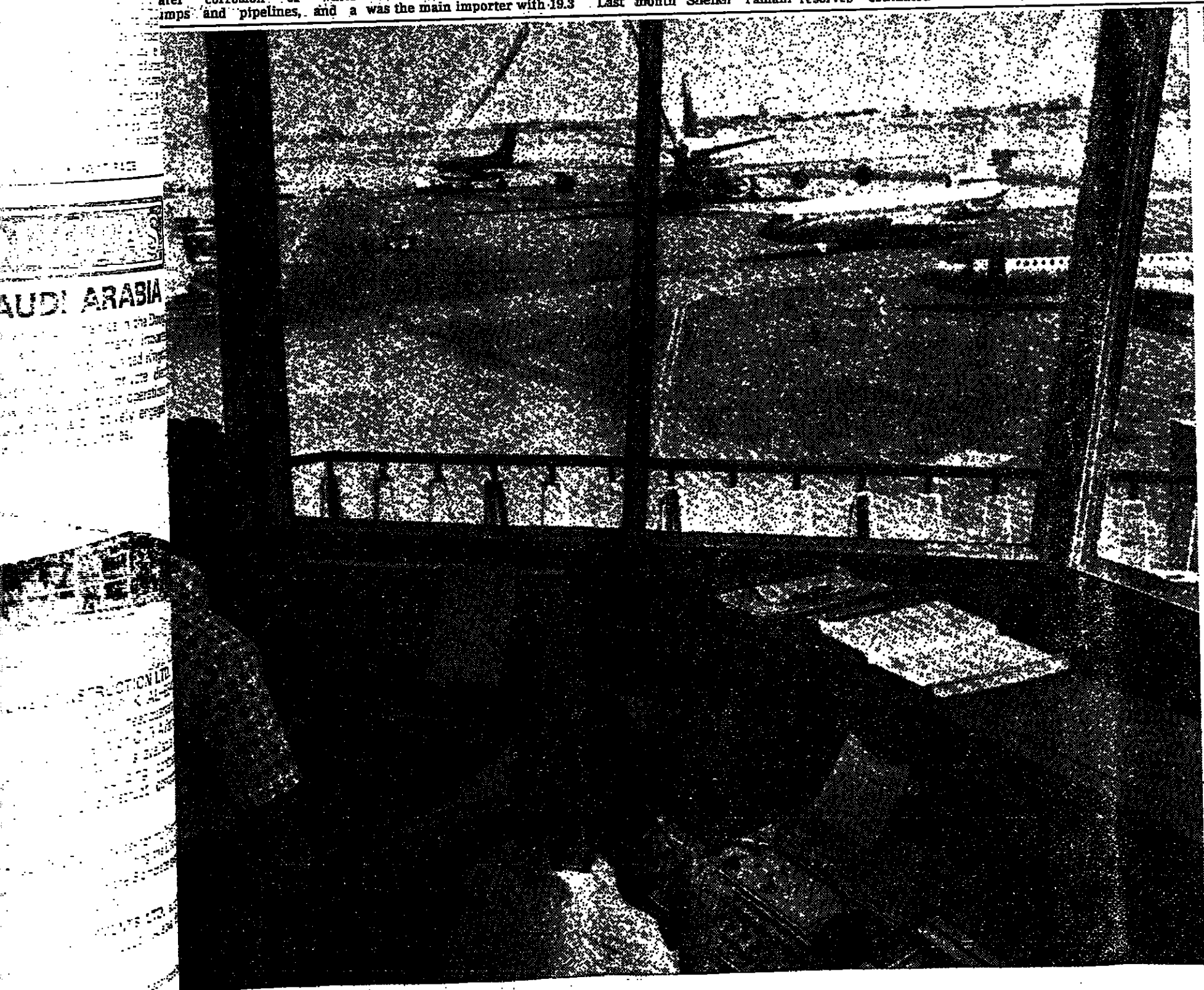
agreed to investigate the chances of using local iron ore deposits in Wadi Sawawin at some time in the future. A feasibility study for a 225,000 tonnes/year aluminium smelter does not seem yet to have attracted a foreign company, and SABIC's optimism about the viability of the project is based on studies indicating that a world shortage of aluminium in excess of 1m. tonnes a year will exist by 1985.

Chemical fertilisers have been discussed with various foreign companies including Britain's I.C.I. But the most advanced discussions have been with the Taiwan Fertiliser Company. Talks are officially said to be "at the negotiation stage."

The proposed joint venture with the Taiwanese would be for an ammonia urea plant producing 1,500 tonnes a day of urea. Saudi Arabia's hopes for industrialisation are tied to the broader question of relations between oil producing states and the industrialised West. Saudi Arabia is determined to participate in oil-related downstream activities and has a big political stake in pursuing plans for a petrochemical revolution. Both the Government and the joint venture oil companies are

The unspoken issue concerns the clout which Saudi Arabia could bring to bear to persuade critics of its petrochemical dreams that the Kingdom has a just case in its downstream ambitions and that future production would represent a portion of world output small enough for western producers to live with. It is not Saudi style to brandish openly its means of leverage, but recent signs have been that the guardian of OPEC's main oil supplies would be willing to enlist the active support of OPEC members to enforce its aims. Discreet reminders from within the Kingdom of the existence of the oil deterrent have been echoed by Mr. Muhammad Ali Jaidah, Secretary-General of OPEC, who has warned that unless the balance of new petrochemical construction between the west and the developing world is redressed, "member countries would have no recourse but to adopt collective strategies." Saudi Arabia believes it has the deterrent power necessary to construct the dream.

Michael Tingay



## IAL. Behind the scenes at more than 75 airports throughout the world.

IAL has been serving the aviation industry for three decades. In 1947, when the world's major airlines were recreating services and expanding long-haul routes, IAL was established to provide technical staff and equipment at airports in many parts of the world.

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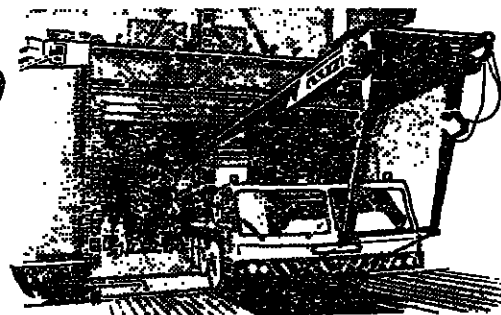


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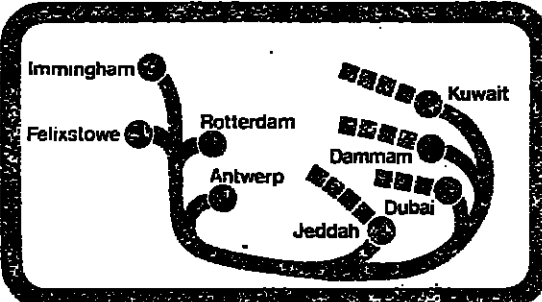
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## SAUDI ARABIA XXVI

Marketing in Saudi Arabia is a mixture of the straightforward and the apparently impossible. Once a particular brand dominates the market it becomes extremely difficult for another manufacturer to compete. This is in large part because of the weakness of advertising, an industry still in its infancy.

# Marketing

FEW BUSINESSMEN would actually use to mean second ever claim that working in Saudi Arabia is easy. There are the tiring and frustrating problems of the Kingdom's inadequate telecommunications system (the most conspicuous remaining bottleneck), the slowness of clients, the bureaucracy and delays involved in any dealings with the government, and the daunting scale of logistical operations in the contracting industry—to name just a few of the difficulties. Yet in many respects the market itself in Saudi Arabia is relatively straightforward. It is a country where consumers (and some private sector buyers of capital equipment) can be very unselective, where the simplicity of a product is all important and where advertising is in its infancy. The Kingdom is not a market where success in selling consumer goods depends on anything very sophisticated or complicated.

One of the most impressive features of the market—and a good starting point when discussing its character—is the extraordinary brand consciousness of Saudis. To a much greater degree than happens in the West people refer to a product by the name of a popular brand, which results in milk powder being known as "Nido" sewing machines as "Singers" and, until recently, pens as "Parkers." This brand consciousness, which seems to have spilled over into the expatriate community, is accompanied by a similar acute awareness of the origin of products, possibly because the nationality of the brand is not disguised by local manufacturing operations as it often is in the West. Inevitably certain exporting countries, currently America and to a lesser extent Germany, acquire a reputation for quality, while others' goods are regarded as inferior. At one time in Saudi Arabia the word "Japan" was

actually used to mean second tier—such as the local service facilities and the guarantee—make one product a better buy than another. With washing machines, for instance, a customer may need to be told that she should compare the loads of two makes, and enquire how many programmes the different models run and at what speeds their driers operate. The general ignorance of customers stems partly from the fact that people in the Arabian Peninsula do not go window shopping—which has a vicious circle effect in encouraging extremely poor window displays, which in turn provides a further disincentive for window shopping. Also, because of the huge affluence of some sections of the population, people may be much more careless about buying and, compared with the European buyer, know much less about why they want or need a particular product. With their lack of definite buying motives Arabian consumers are often described by salesmen as being like a certain type of American consumer—with the important difference that the Arabian buyer has not been encouraged to make an unnecessary purchase by advertising.

### Weakness

One reason why an established brand is able to maintain its position in the market so easily is the weakness of advertising in Saudi Arabia, which makes it difficult to introduce new products to the consumers. Up to the last ten years the only advertising medium was the roadside placard, containing extremely uncomplicated material such as a picture of the product and the manufacturer's or agent's name. Very few of these placards, which are still the major form of advertising in Saudi Arabia, try to build any sort of image for their product, and none at all contain the humour or ingenuity of Western posters. Relatively recently the evolution of the Saudi Press has provided another medium, albeit not a very effective one. But Saudi television, which is the only medium which salesmen feel might be really effective, remains strictly non-commercial.

The maintenance of a favoured brand's dominant position in the Saudi market is further helped by the sheer ignorance or lack of expertise of the consumers. Throughout the Arabian Peninsula marketing men of the big merchant groups find that a major part of their job is telling a customer what he or she should expect from a product, and what other quality

parties using its own trucks that follow a proper maintenance schedule for their cars and than Mercedes in the past few years.) It even seems that buyers are more attracted to items that are in short supply, possibly because the shortage looks like an additional popular endorsement of a favoured model or brand. Then rather than wait for the shortage to ease and new stocks to become available, buyers will try to bring influence to bear on the distributor in order to get to the top of the waiting list.

Predictably, in a market where reputation—spread by word of mouth and buying example—is everything, the two most important factors in a company establishing its brand name are the simplicity of the product and the service backup. Generally the Arabian buyers of consumer durable goods are bad at using machines and are not inclined to read instructions. Distributors of such goods often find that the goods they have sold are returned to their showrooms broken a day or two after delivery. Many distributors now send a mechanic to demonstrate the machine in the buyer's home, and because this involves personal contact rather than the impersonal reading of an instructions manual the lessons are more likely to be effective. The merchants point out that there is generally in Arab society a preference for asking rather than reading, and this applies as much with notices giving directions in buildings or on roads (which may often be ignored however prominently they are displayed) as it does with technical handbooks. This trait in the Arab character is probably a major reason why existing advertising media in Saudi Arabia are so ineffective.

As part and parcel of their non-mechanical mindedness, few consumers are prepared to

follow a proper maintenance schedule for their cars and than Mercedes in the past few years.) It even seems that buyers are more attracted to items that are in short supply, possibly because the shortage looks like an additional popular endorsement of a favoured model or brand. Then rather than wait for the shortage to ease and new stocks to become available, buyers will try to bring influence to bear on the distributor in order to get to the top of the waiting list.

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What has deterred many distributors from providing good service facilities has been that there is no profit (or very little profit) in the service operation itself and that the capital investment required is high. The size of the investment is particularly daunting for a new agent who is not sure whether the product he is taking on will sell well enough to justify the outlay. Many agents have fallen into the trap of persuading themselves that they should start with small service facilities and then expand the scope and quality of the operation if and when sales begin to grow. This inevitably leads to the early buyers of the product getting a bad deal and giving the product a bad reputation.

In most cases foreign operations themselves are reluctant to invest in service facilities in the Kingdom, but a classic example of the benefits which have gone to some of the exceptions is provided by Komatsu, the Japanese manufacturer of construction equipment. When the company found that its agent was reluctant to invest in adequate service, it set up its own operation, and from being virtually unknown in Saudi Arabia several years ago it now ranks as the number two equipment supplier after Caterpillar.

### Service

Because of these characteristics it is vital that distributors develop a good service operation—notwithstanding the comments in the last paragraph on throw away mindedness. Exceptionally service in the Arabian Peninsula has been bad and expensive, and so those companies which have taken the trouble to develop good service operations have won big market shares for themselves—prime examples being E. A. Juffali and Brothers, the Saudi agents for Mercedes, and Yusuf Ahmed Alghanim and Sons, the Kuwaiti agents for most of the General Motors range.

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Saudi Arabia's electricity generating capacity is constantly in danger of being overloaded. But the network is being expanded as fast as possible, and the electricity generating companies have come under close scrutiny by the Ministry of Industry and Electricity.

## Electricity

FACED WITH a demand for electricity that continues to spiral as new development projects come into operation and living standards continue to climb, Saudi power generating companies have been striving manfully to keep pace. At the same time the Saudi Government has been taking an increasingly active part, chiefly in the electrification of rural areas, but also in the supervision of the companies. In the course of the year Minister of Industry and Electricity, Dr. Ghazi Algosaili, has shown himself to be a hard taskmaster, both to local companies and to foreign contractors.

Six major electricity companies generate power under licence to the main centres of population in Jeddah, Riyadh, Dammam, Dhahran, Al-Khobar, Mecca-Taif and Al-Ahsa. Power cuts are fairly rare, but the gap between capacity and overload, particularly in Riyadh and the Western Province, is uncomfortably narrow, and the companies are anxiously increasing capacity. In this area, the interest-free credit provided by the Saudi Industrial Development Fund has been crucial and the six remain by far its largest beneficiaries. From the formation of the fund in 1974 to mid-1976, fund disbursements to the major companies exceeded SR1bn.

In Jeddah the Saudi National Electricity Company (SNEC), of which Sheikh Ali Juffali is chairman, is installing seven new gas turbines with a total effective output of about 350 MW. The General Electric Company of the U.S. is working against a May 31 deadline to complete the first of the units in the \$100m contract. Something of the urgency of the project is indicated in the \$2,000 a day penalty that General Electric will suffer if it fails to meet the deadline. The other six turbines are to be completed by the end of January next year. SNEC controls the whole grid through Jeddah. It has two power stations working at peak load and also receives electricity from the Jeddah desalination plant. The seven turbines are being installed at a third station, where General Electric has already constructed four similar units. These turbines added about 200 MW to the SNEC 110-kV system and came on stream early last year. Even so SNEC says it has orders for all the electricity the new plant will produce. Up to the middle of last year the company had received nearly SR900m in loans from the Saudi Industrial Development Fund. It estimated then that peak demand could rise by 1980-81 to 950 MW, for which a further SR1bn. would be required. For the Juffali family times have certainly changed, for when the Juffali company opened the Kingdom's first public power generating station in Taif in 1950, it boasted a mere 125 subscribers and had to keep the street lights on during the day to keep the generators running.

### Integrated

In the Eastern Province, the present networks that supply the vast industrial consumers in the area will be integrated into a system with 2,500 MW capacity. The Government has designated Aramco to manage the Saudi Consolidated Electricity Company (SCECO), which will combine the 40 or more private electricity companies operating east of Riyadh. The first phase of the integration project was completed last autumn, with the erection of 500 transmission towers along a 230-kV line which will be the "backbone" of the SCECO system. The first phase also included 92 miles of transmission lines and the installation of four substations. Ultimately the backbone will stretch from Uthmaniyah, south of Abqaiq, to Safaniya and will be capable of transmitting bulk power of up to 600 kW to the load centres, populated areas or

industrial complexes (without the risks involved in siting individual power stations close to consumers). Natural gas will be the main fuel supply and power generating plants are to be located at Uthmaniyah, Shadgum, Ghazlan and Berri so that a mutual energy exchange is possible with centres for Natural Gas. Liquids in these places. From sub-stations sited on the backbone at power stations and large centres, transmission lines will branch out to provide power to lesser consumers, refineries, residential areas and factories and, it is

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Water supply has always been a problem in Saudi Arabia. The traditional solution lay in emigration — now the tide has turned, and the influx of population is adding to the continuous need for agricultural water.

## Water supplies

SAUDI ARABIA was blessed earlier this year with the largest lake in the Arabian Peninsula. The six year old Jizsan Dam bottled up, albeit for a few weeks, more than 50m. cubic metres of water — theoretically enough to water Jeddah for a year. Without the dam this lake would have been a huge flow of water surging to the coast in an orgy of destruction of farms, roads, valuable soils, machines, animals and anybody unfortunate enough to be in the way.

The harnessing of half the million cubic metres of floodwater from two nights of torrential rain high in the Asir Mountains marks the greatest success so far of Saudi Arabia's ten year old dam building policy. But the ephemeral Lake Jizsan perfectly illustrates the conundrum of the country's hydrological difficulties. It is not simply that this vast arid land receives only 30 to 100mm of rainfall a year but that water is available at the wrong time in the wrong places in the wrong concentrations.

Responding, apparently after several years of uncertainty, to these harsh geographical realities the government has clarified its policy and priorities for optimum use of limited water supplies. The issues are simple: deciding on the best distribution and balance between immediate human consumption and use for food production; between urban supplies and agricultural water; between fresh water from aquifers underground and desalination plants by the sea. Above all the priority is to minimise wastage.

Historically Saudi Arabia has supported the people for whom the desert has been unable to provide. Since the time of the prophet Mohammed, Arabs have left the Peninsula at different periods in waves spreading across what is now the Arab world. For the first time the desert's limited water resources are having to cope with the 5 to 10 times as much water per

return tide of hundreds of thousands of foreigners who have been drawn in by the economic expansion which followed the oil boom.

Only in the north and east and the better watered south west is the government able to give priority in water supply to agriculture. In Riyadh and the western coastal region it has been obliged to channel most effort into providing water for city supplies.

An official said: "Drinking water has to take priority over water for farming. Our towns are growing so fast that we don't even have enough time to take full stock of the situation. You can't freeze reality."

### Expansion

In this case reality is an accelerating urban expansion from two directions at a rate probably never witnessed before. First, there is an internal movement as bedouin, peasants and farmers abandon their rural life and traditional habits (which include a low daily consumption of water by individuals) in favour of high wage jobs in the cities. It is not just a question of the attraction of the new urban way of life — so difficult

is it to make traditional farming profitable enough to keep them up with the rocketing cost of living that Saudis have had to turn to government and service sector jobs to maintain their living standards. Aggravating the trend is the sad fact that agricultural land in the vicinity of towns is being swallowed up in the construction boom or is being set quietly aside by those with an eye to land speculation. In addition there is external momentum from 14 to 2m. foreigners (from casual Yemeni workers to American executives) who have arrived in Saudi Arabia in recent years. Jeddah is now 50 times larger than it was ten years ago. People in Riyadh and Jeddah consume the British firm is responsible

for resources in the central and eastern areas.)

The physical dimensions of urban expansion also hold special problems for water distribution. One Saudi official pointed out that in Riyadh the high cost of land near the city centre has produced a series of satellite suburbs many miles outside the old city limits and that water in the pipes, as these new areas are connected to the central supply, could be equivalent in volume to a medium-sized aquifer. He said, "With our free economy people build where they can afford to. To supply their homes with water we have to lay hundreds of miles of pipes through undeveloped land to reach the suburbs."

Despite the voracious demands of Saudi Arabia's town dwellers, a large proportion of water in the hydrological cycle goes to agriculture — an estimated 70 per cent this year. A Saudi water expert explained, "People are greedy enough but their water wastage is nothing compared to that of plants watered by traditional irrigation. We can lose up to 30 per cent of water supplied through evaporation from the fields."

An important distinction between agricultural and urban demand is that the former, dictated by geography, has long been close to the maximum while the latter, the product of recent history, will continue to accelerate. With agricultural water supply, the target is to optimise use of existing resources and cut down wastage.

It is here that Saudi capital can introduce modern know-how, technology and planning. One of a number of studies to quantify more exactly existing resources is currently being done by the British groundwater development consultants Hunting MacDonald's. (West German and Canadian consultants are working in the West while

for resources in the central and eastern areas.)

Their task is to measure accurately the huge Umm er Radhuma aquifer system, which stores a vast volume of fossil water (never younger than 10,000 years stretching from the Iraqi border in the north under the country down to the Empty Quarter. Overall, their is an agricultural brief (they are also looking at soil resources) but the urgency of the Kingdom's urban supply problem is such that they are better known for work on the Wasia project, a costly scheme 100 kilometres east of Riyadh to pipe 200,000 cubic metres of water daily to the capital by 1980. (Last year Riyadh was using 150,000 cm a day from smaller aquifers north and west of Riyadh.)

While foreign consultants have been assessing resources in relation to future needs, the Government has continued with its programme of creating a modern hydrological infrastructure. In the past ten years 45 small dams have been completed and 13 are currently under construction. With a 10bn. riyal budget on water development over the next four years (excluding desalination projects which are budgeted separately) the Government intends to build ten new dams a year.

The purpose of these small dams is primarily to hold back periodic flashfloods which can be catastrophically destructive. Additionally, they store water for limited periods, prevent loss through the wadi channels and recharge shallow wells through ground seepage. Last month's appearance of the Jizsan lake (filling to three-quarters of the dam's capacity) enabled farmers to irrigate their land five and even six times. In the past investigation, Dr. Algosabi said that the lines, generators and isolated areas in the Kingdom and manage projects already undertaken by the new Board now has a team of

Wadi dam has more than twice the capacity of Jizsan and the programme could eventually facilitate the introduction of completely mechanised farming. The results have been summed up with the observation by an official that "before the dam the risk to farmers' livelihoods was 100 per cent — now the certainty of getting water is 90 per cent."

Another dam at Abha has provided guaranteed drinking water (a storage and purification plant is installed) for the first time to members of the local tribes. One disadvantage of the dams is that silt, a proportion of which was formerly deposited on the wadi (dry river) bed, now remains behind when the temporary lakes evaporate.

Of all projects made possible by the enormous funds available, the desalination programme has received perhaps the greatest publicity. Indeed,

the independent budget for the Water Desalination Organisation is SR22bn, which is almost as large as the total spending of the Ministry of Agriculture and Water Resources last year.

One popular misconception which has arisen is the notion that one day desalination could provide all the Kingdom's water needs. This is not so. Desalination is complementary to rainfall and groundwater resources. (One consequence of fanciful reporting was last year's dismissal of Prince Mohamed al Faisal from his job overseeing water development. His expressions of Saudi willingness to contribute to international research into the possible use of icebergs for water supply were rapidly metamorphosed in the world's Press into firm plans to tow icebergs to Jeddah.)

Desalination plants currently produce rather less than 70,000 cubic metres per day (more than 18m. gallons). This is intended to rise to 114,000 cm (30m. gallons) by the end of this year and more than 400,000 cm (105m. gallons) by 1981. The main plants are at Jeddah (where the 38,000 cm (9.5m. gallons) plant was completed in November last year), Al Khobar 28,000 cm (7.5m. gallons) rising to 190,000 cm after three years and the new ports of Yanbo (19,000 cm by 1980) and Jubail (114,000 cm by 1980).

To put these figures into perspective it is thought that

the daily requirements of Riyadh will reach 600,000 cm by 1981 with 400,000 cm for Jeddah. By 1980 the capital should be connected to Al Wasia and receiving 200,000 cm of piped aquifer water, as well as 360,000 cm from current existing sources.

Most city supplies come from aquifer and rainwater though Jeddah's natural sources are supplemented by desalinated water. Such supplies, which are not usable for agriculture currently provides 5 per cent of total urban supplies. Specialists say that desalination is unlikely to provide more than 20 per cent of town water though in individual cases like Jeddah it will become the main source, supplemented by aquifer water.

It is Jeddah which provides a final example, quite dramatic as the Jizsan Dam, of the problems of unpredictable and inequitable distribution of natural water supplies. This winter's entire rainfall fell in two separate downpours in December (when 56mm fell in 24 hours) and February 23 and 24 when the city was brought virtually to a halt by 70mm of rain. All the petrodollars in the world could do nothing to avoid this disruption. Even if a billion riyal sewage system were installed to drain away such a diurnal deluge the sewers would be totally clogged by dust and dirt accumulating during the year.

Mahmoud Tayba, travelled to Pakistan early this year to commission the contract, where he said that he had no doubt that the \$70m. project could be completed within 20 to 24 months, well within schedule.

This episode has now blown over and Dr. Algosabi himself said that the cancellation had served its purpose, since there had been a noticeable drop in the levels of tenders received lately. Meanwhile the Baha project has been completed and similar schemes are planned for Najran, Qasim, Sudair, Wadi Fatima, Hail, Al-Ahsa and Namas. The SR300m. first phase of the Qasim project is being undertaken by the Canadian concern SNC Services and will bring electricity to some 300 villages in an area north-west of Riyadh. The total cost of the enterprise is expected to exceed SR700m.

### Short-term

Other short-term projects include the electrification of villages along the main pilgrimage routes and of 75 isolated settlements as well as a rural electrification programme for 72 small towns. This last is to be completed a year after the end of the plan period and its cost is estimated at SR250m.

The longer-term programme for the electrification of whole regions and their integration into a single-voltage national grid, which will be both more reliable and less wasteful of valuable labour than the present systems, will not be realised in the course of the second five-year development plan. But emphasis on the development of bulk supply from water desalination and natural gas makes the achievement of a national grid inevitable.

The first major desalination plant, commissioned in Jeddah in 1970, is now well into its second phase with a capacity of 130MW. By the end of this year that capacity will have increased by an additional 200MW, and after three years by a further 500MW. According to Essam Jamjoom of the General Desalination Authority, the total capability planned for the Western seaboard is 2,000 MW, while on the east coast plants from Al-Khafji in the north to Al-Aziziyah south of Al-Khobar are to have a combined installed capacity of 3,000MW. As part of this programme, the Italian company GIE was awarded a \$280m. contract in October for a 500MW project at the industrial complex at Jubail.

Jamie Buchan

## Electricity

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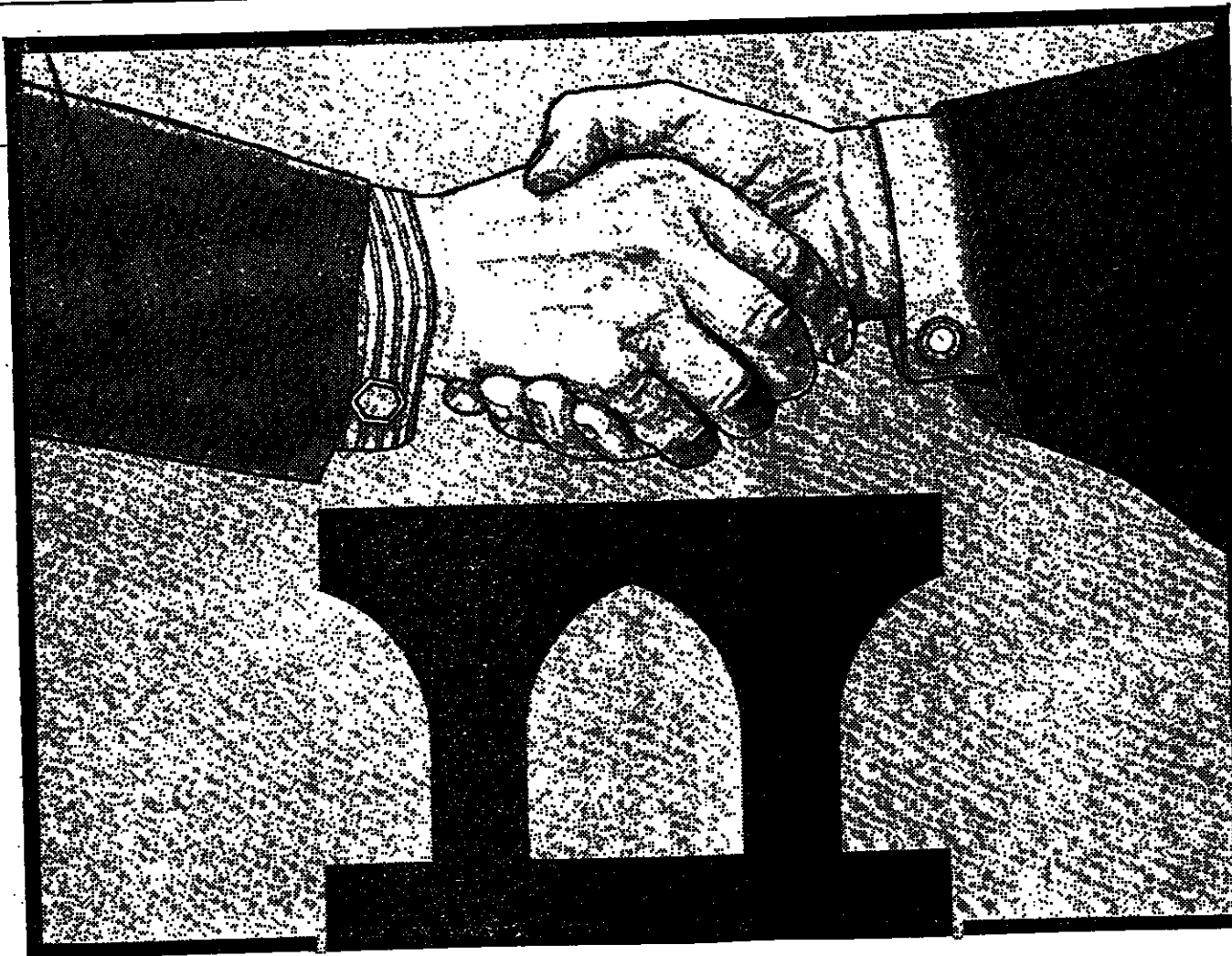
hoped, ultimately to Bahrain as soon as the projected causeway is built.

Elsewhere, the 1977 picture has been less rosy and Dr. Algosabi has warned electricity companies that they are under scrutiny to improve their services and expand networks. He singled out the Medina Electricity Company as giving his ministry cause for concern, but pressures at Riyadh seem to have been more serious, with demand increasing by 35 per cent a year. After repeated complaints from the public, the Council of Ministers dissolved the Board of the Riyadh Electricity Company in June. After investigation, Dr. Algosabi said that the lines, generators and isolated areas in the Kingdom and manage projects already undertaken by the new Board now has a team of

23 British advisers recruited from the North-West Area Electricity Board for British Electricity International, an arrangement made under the Saudi-British Economic Co-operation agreement, which endeavours to bring the expertise of British State institutions to the assistance of Saudi Arabia. In December the reconstituted company signed consultancy and purchasing agreements radically to improve the capital's network.

The more active participation of the Saudi Government is certain western and Japanese companies had made inflated bids. The contract for the Asir Organisation formed in 1976 to provide electricity to remote Hyundai of Korea, at a considerably lower contract, and that for Al-Kharj to the Pakistani State already undertaken by the electrical engineering concern, The organisation's head,

a modest SR20m. electrification scheme in Al-Quweiyah was opened in the autumn of 1977. While Dr. Algosabi has stated, echoing the late King Feisal, that "electricity will reach every house and every village in the Kingdom," the present rural electrification programme is concentrating on integrating certain small towns and their surrounding villages. This programme was delayed early in 1977 when contracts for the regions of the Asir, Jizsan, Baha and Al-Kharj were cancelled following charges that certain western and Japanese companies had made inflated bids. The contract for the Asir Organisation formed in 1976 to provide electricity to remote Hyundai of Korea, at a considerably lower contract, and that for Al-Kharj to the Pakistani State already undertaken by the electrical engineering concern, The organisation's head,



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# JUBAIL

## two major industrial projects of Saudi Arabia's future

The Kingdom of Saudi Arabia has an expendable source of wealth, and the day will undoubtedly come when that source is finally depleted.

In recognising this irrefutable fact, the Saudi Government has long been determined to ensure that the source of the nation's future wealth and prosperity for its citizens by converting its present wealth into a sound productive base.

This, given the geography and infrastructure of the country, means a programme of rapid but carefully planned industrialisation.

The long-term objective is one of diversifying the Kingdom's industrial base, thus enabling Saudi Arabia to realise a greater measure of self-sufficiency.

In the short-term, however, efforts towards industrial development are being concentrated on two main areas: the setting up of hydrocarbon-based industries which can make maximum use of Saudi Arabia's natural resources, and the establishment of industries that are not only economically feasible but add to the country's national security and social prosperity.

For these very reasons, the two widely separated regions of Jubail on the Gulf and Yanbu on the Red Sea coast were chosen so as to strengthen the economic ties between the eastern and western ends of the Kingdom, and a Royal Commission was established to implement their industrial development.

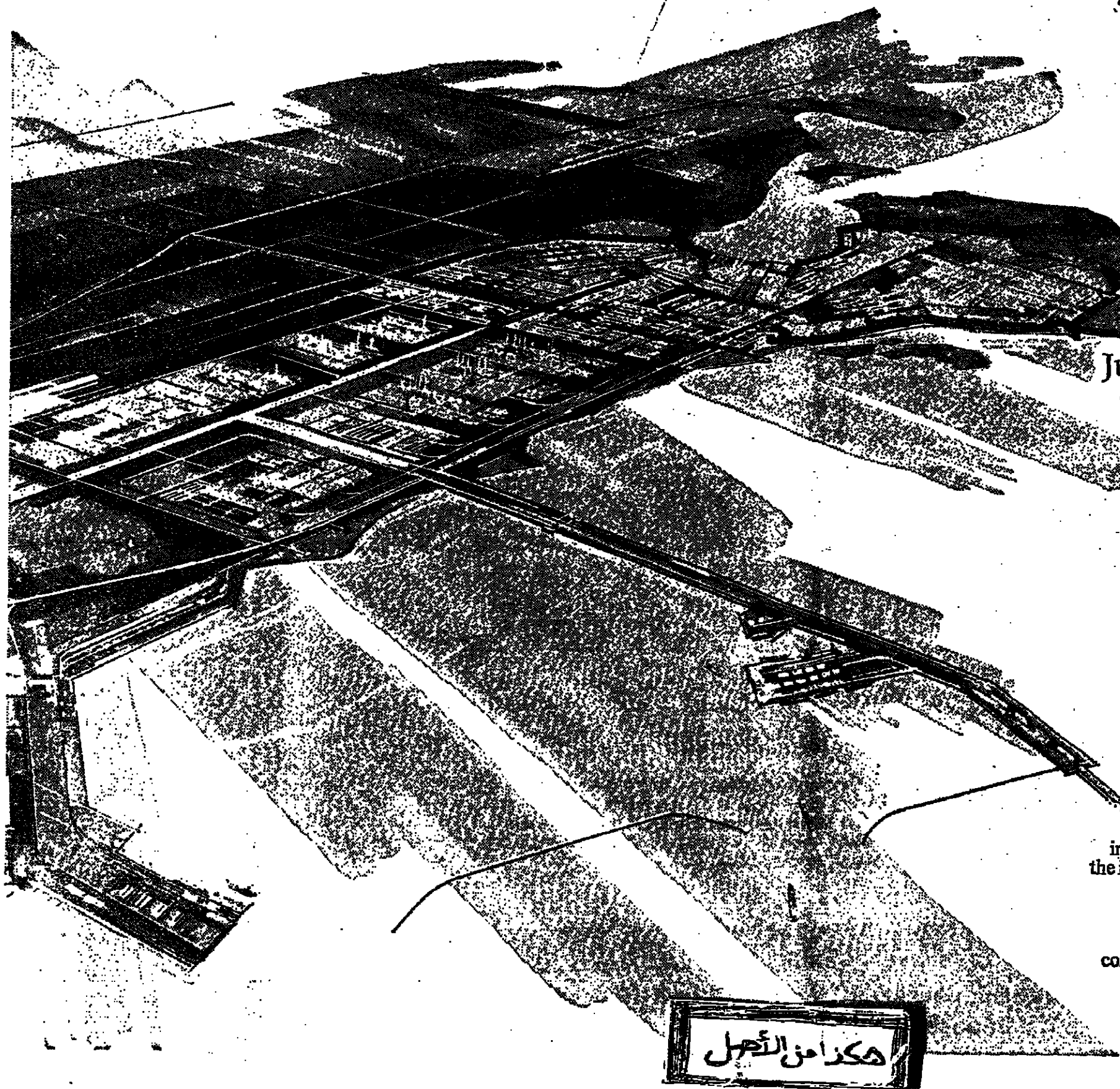
Jubail was chosen mainly for its proximity to cheap energy sources, which could also supply basic raw materials to the petrochemical industries destined to be set up there.

### JUBAIL

The total area for the Jubail project and adjacent community facilities comprises 170 Km<sup>2</sup> with an additional 730 Km<sup>2</sup> to allow for future expansion. It is planned that the Complex will include nine major industrial plants; modern power, water, and waste treatment systems; a comprehensive transportation system that incorporates an international airport and a major new harbor complex; a regional telecommunications system; an extensive manpower training center; and a complete new community.

The estimated support population for the town is expected to exceed 200,000 inhabitants. The support industry, the infrastructure facilities, the urban design and the institutional structure will provide the quality of life and the human and industrial growths aimed at with the inception of the industrial complex of Jubail. Scores of contracts have already been awarded and scores of others are being planned for the short and the long terms of development. Site preparations, construction camps, water supply systems, roads, ports are at various stages of completion. Construction has been under way at Jubail for the last two years and the beginnings of a town and its people are taking shape.

هكزامن النجمل



Yanbu, on the Red Sea coast, is an excellent geographical centre from which to export products to Europe and natural gas to the Kingdom's east. It will provide the energy and petrochemical base for the future in Yanbu. The choice of Yanbu, keeping with Saudi policy, which aims at the benefits of development to the regions to the west of the population.

Apart from the fact that these two development projects, both economic and social, will facilitate the development of many fields and will provide a valuable core of development directly on the Gulf and Yanbu but also a maintenance and support base.

With the project of the Royal Commission for the development and research and his Majesty's steps to develop the resources and establish an industrial base within the Royal Commission.

### YANBU

Yanbu Project will arrange for a large industrial plant, refinery, and petrochemicals, and a major port for the export of oil and natural gas. It will also provide a base for the development of a major petrochemical and petrochemical complex, as well as all the necessary infrastructure, including telecommunications, water supply, and power. The most notable feature of the Yanbu project is the NGL plant.



# JUBAIL AND YANBU

## Major projects at the heart of Saudi Arabia's future development

Jubail, on the one hand, has an excellent geographical location which makes it an ideal centre from which to export petrochemical products to Europe via the Suez Canal. In addition, oil and natural gas pipelines connecting the Kingdom's eastern and western regions would provide the energy necessary for running all basic and petrochemical industries scheduled for the future in Jubail.

The choice of these two separate regions is in keeping with Saudi Arabia's overall development policy, which aims as far as possible at spreading the benefits of economic growth throughout all regions, to the ultimate benefit of the entire population.

Apart from the obvious advantages that will accrue from these two massive projects in pure industrial development terms, a great number of fringe benefits, both economic and social, will be forthcoming. For example, in both regions these projects will facilitate the training of tens of thousands in many fields and thus will create for the future a valuable core of highly skilled craftsmen, not only involved directly in the main industries at Jubail and Yanbu but also in such ancillary industries as maintenance and supply.

Both the projects, under the guidance and control of the Royal Commission, are powerful examples of the foresight and responsibility of His Majesty King Khaled and his ministers in taking positive and far-reaching steps to see that the future of the Kingdom and its peoples relies less on irreplaceable natural resources and external economic factors and more on the establishment of a firm and expanding industrial base within the nation itself.

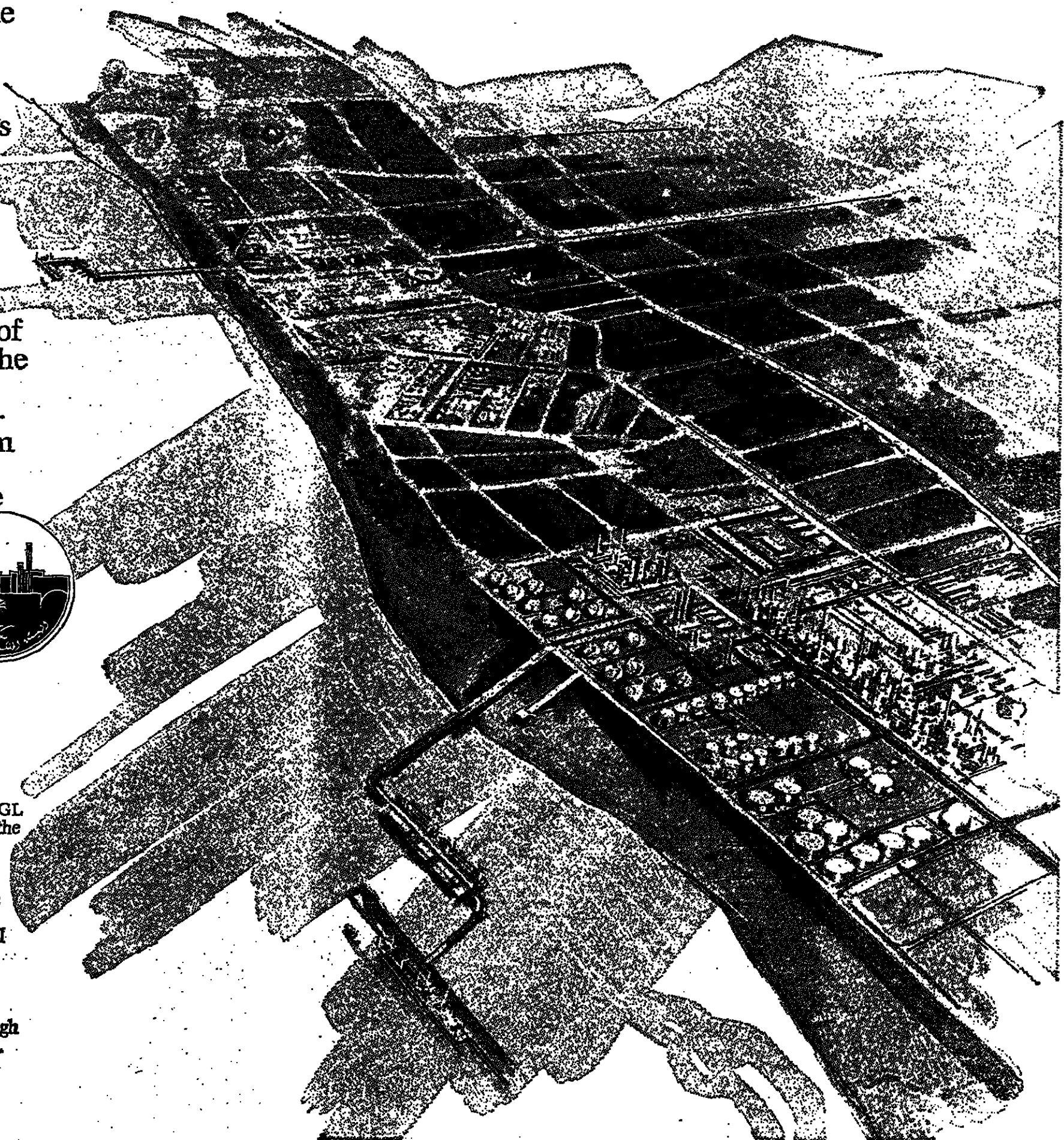
**The Royal Commission for Jubail & Yanbu**



### YANBU

The Yanbu Project covers an area of approximately 190 Km<sup>2</sup> and will provide infrastructure facilities for a wide range of industries, including a crude oil terminal, an NGL fractionation plant, refineries, a petrochemical complex, support industries and, in the long term, ore and mineral based industries. Support facilities to be provided by the Royal Commission will include a new community for 150,000 inhabitants to house the population generated by the industrial development, a major port complex to meet the specialized requirements of the hydrocarbon and future industries, a new airport and an extensive road network, as well as all the necessary utility systems that will serve both the industrial complex and the community development: integrated power and water generation and distribution systems, waste treatment and disposal system and telecommunications.

Major construction support projects have been under way on the Yanbu site since March 1977, the most notable achievement being the temporary port facilities through which the crude and NGL pipelines are currently being imported into the Kingdom.





## SAUDI ARABIA XXX

The object of the massive Saudi Arabian road building programme is to spread industrial and agricultural development to every region of the country - and so far, the aim is well on the way to being achieved.

# Roads

SINCE THE beginning of the first Five Year Development Plan, the road system in Saudi Arabia has doubled in size.

Before 1934 only 237 kilometres of paved road had been laid, mostly by Aramco in the Eastern Province. By 1970 and the beginning of the first plan period, the paved-road network had increased to 8,434 km., and although construction during the first plan fell somewhat short of the 5,000 km. target, the Ministry of Communications in Riyadh now estimates the total length of paved roads at over 16,000 km. In addition to a further 13,000 of earth-surface rural feeder roads laid by the Ministry's Roads Department.

The goal of the programme, according to the Ministry, is nothing less than to integrate the whole of this vast country in order to spread industrial and agricultural development to every region. Social development and the present policy of administrative decentralisation cannot proceed without a complete road system, it is argued. Questions of security also weigh heavily with the construction of military cantonments in the remote marches, at Hafr Al-Baton and Tabuk in the north and Khams Mushait in the south-west.

## Important

Roads constructed so far have only begun to bite into the problem, for apart from the main Jeddah-Riyadh-Dammam axis road, the most important highways built to date are the Tapline road, running along the Saudi-Iraq border, a road south from the Jordanian border to Jeddah via Tabuk, the Medina-Riyadh link and a road south from the capital skirting the Empty Quarter.

Road links between the central axis and Saudi Arabia's northern neighbours and southern provinces are still poor, and the small cities on the lip of Nafud desert in the northern hinterland are all but isolated. The present highway from Jeddah to Riyadh would displace a crow, since it was built originally to take in the relatively populous areas north-west of Riyadh. A more direct route to the south has been under study since 1966 and a two-lane road from the escarpment west of Riyadh to Halaban, half-way to Mecca, has been designed by the British consultants BMMK and is expected to be completed very shortly. Construction of the next section to Zalim on the old road has been held up because a short desert section is still under design.

Meanwhile a Mecca-Halaban dual carriageway is being studied by a Saudi-Danish partnership, ZACO, with provisional estimates for its design and construction exceeding SR2bn.

All these roads, along with the Jeddah-Mecca dual carriageway presently under construction, are being subsumed under a project for a grand dual carriageway from coast to coast, for which Cabinet approval has already been given. Ove-Arup is handling the design of the Halaban-Hofuf section and Saudconsult an extension to Abqaiq.

To the south, construction is progressing on two main roads, along the coast to Jizan and along a parallel escarpment into the Asir, which is to be developed into a domestic tourist area.

The extension of these roads into the Yemen Arab Republic, to Hodeida and Sada, is being studied by the American consultants Wilson Morrow, and they were tabled for discussion at the recent session of the Saudi-Yemeni Joint Commission. The link between Mecca and the coast road at Al-Lith will be completed by the Florentine company Tirenza Scavi by September at a total cost of SR230m.

In the north, a road will ultimately run from Rafha near the Iraqi border to Hail and on to Al-Vila and Al-Wejh on the Red Sea coast. By this road traffic from the Central Province to Kuwait and the north-east will be spared the tiresome detour through Riyadh and Dammam. BMMK is working on the final plans for the Hail-Al-Vila section, which will ultimately form part of a second east-west road, meeting the Gulf coast at Jubail.

## Linked

North of the Nafud the town of Al-Jouf is to be linked with the Jordanian border by the Wadi Sirhan and with the Medina-Tabuk main road, where construction is well advanced except in a difficult desert stretch in the centre. The Tapline road will also be expanded to improve the connection between the Eastern Province with Jordan. All but one section of a new Jeddah-Yanbu-Aqaba coastal road are under construction.

Earth-surface road building has so far been concentrated around the small centres north-west of the capital, in the Dammam - Al-Khobar region and around the Holy Cities. In fact rural roads for the use of pilgrims accounted for the largest item in the Ministry's list of rural roads opened before mid-1977.

The second plan calls for 13,000 km of main roads to be constructed in the five-year period to mid-1980 and for 10,260 km of rural roads. As in the first plan, actual construction is running short of target as only 1,900 km of paved roads were laid in the 1976-77

financial year out of a proposed total of 3,000 km. With imported supplies now moving smoothly since the easing of port congestion, 1977-78 should reach its target of 2,500 km, although a shortfall of about 1,500 km is expected for the whole plan period.

Supplies no longer represent a great problem to contractors, with construction material imports for 1977 almost double those of the previous year and cement in good supply. Asphalt is provided by the refinery at Ras Tanura (at a mere \$20 a ton directly), and most contractors have their own on-site crushers for making aggregate from abundant local sources.

## Preferential

Saudi contractors receive certain preferential terms in tendering for contracts and have been well represented since Binladen built King Abdul Aziz a road from Jeddah to the summer residence in Taif. In areas where greater experience is required, competition between foreign companies is intense. Italian contractors, faced with a complete shut off at home, have established a strong presence and account for about one-third of all roads built. But high overheads now drive European tenders up to 30 per cent. higher than bids from Korean or Taiwanese firms, and many new European arrivals are obliged to bid suicidally low merely to establish a foothold.

The terrain is difficult, not only in the mountains but also on the flatlands where roads are vulnerable to flash floods and blown sand. In the early summer, when the big winds blow out of the Empty Quarter, a road can be buried in hours, and some of the methods for stabilising sand are ingenious. On the Halaban road, BMMK aimed to create aerodynamic shapes over which sand particles will blow without settling. A series of bituminised rubber strips are laid parallel to the road, providing a flexible "net" to contain the dunes. Even so extreme care must be taken, since a single rock can form the nucleus of a dune and crash barriers and sign-posts must be sited where they will not cause a build-up of sand.

The periodic rains are even more destructive. A February storm caused more than SR2m of damage to the Mecca-Al-Lith road and washed away a section of another road in the Wadi Sirhan. Embankments, dykes and culverts are the answer, although they look incongruous in desert country.

They also contribute to the expense of road building in Saudi Arabia. The original second plan figures suggested a cost per kilometre of about SR750,000, but this is now

thought to be insufficient except for the most rudimentary level road. For mountain work, a cost per kilometre of more than double that has been accepted by the Ministry.

The actual value for money looks even smaller, considering the vast distances to be crossed and the generally small populations to be linked. Although vehicle imports rose to 4m. in 1977 against 3.6m. in 1976, few Saudis take their cars on long-distance journeys, preferring to take advantage of subsidised domestic air travel. Except during the pilgrimage traffic congestion is confined to the inner and outer cities, and in Jeddah this is reaching severe proportions.

On the whole long-distance road haulage from Europe to Saudi Arabia seems to be on the way out, the hauliers having finally succumbed to the formidable physical and bureaucratic hazards of the overland run. But all freight out of the ports is carried by road and this traffic will not abate for some time.

A severe shortage of trucks operating out of Dammam and Jeddah has now eased. The market for heavy goods vehicles is now mostly absorbing excess stocks ordered during the port congestion, but domestic output, from the Juffali-Mercedes National Automobile Industries assembly plant, is increasing steadily despite high plant overheads and is expected to exceed 6,000 HGVs a year by 1979.

Long-term plans for new railroads do not yet pose a serious threat to road freight. The sole railway in operation the 565 km. line from Dammam to Riyadh, carries one freight train a day.

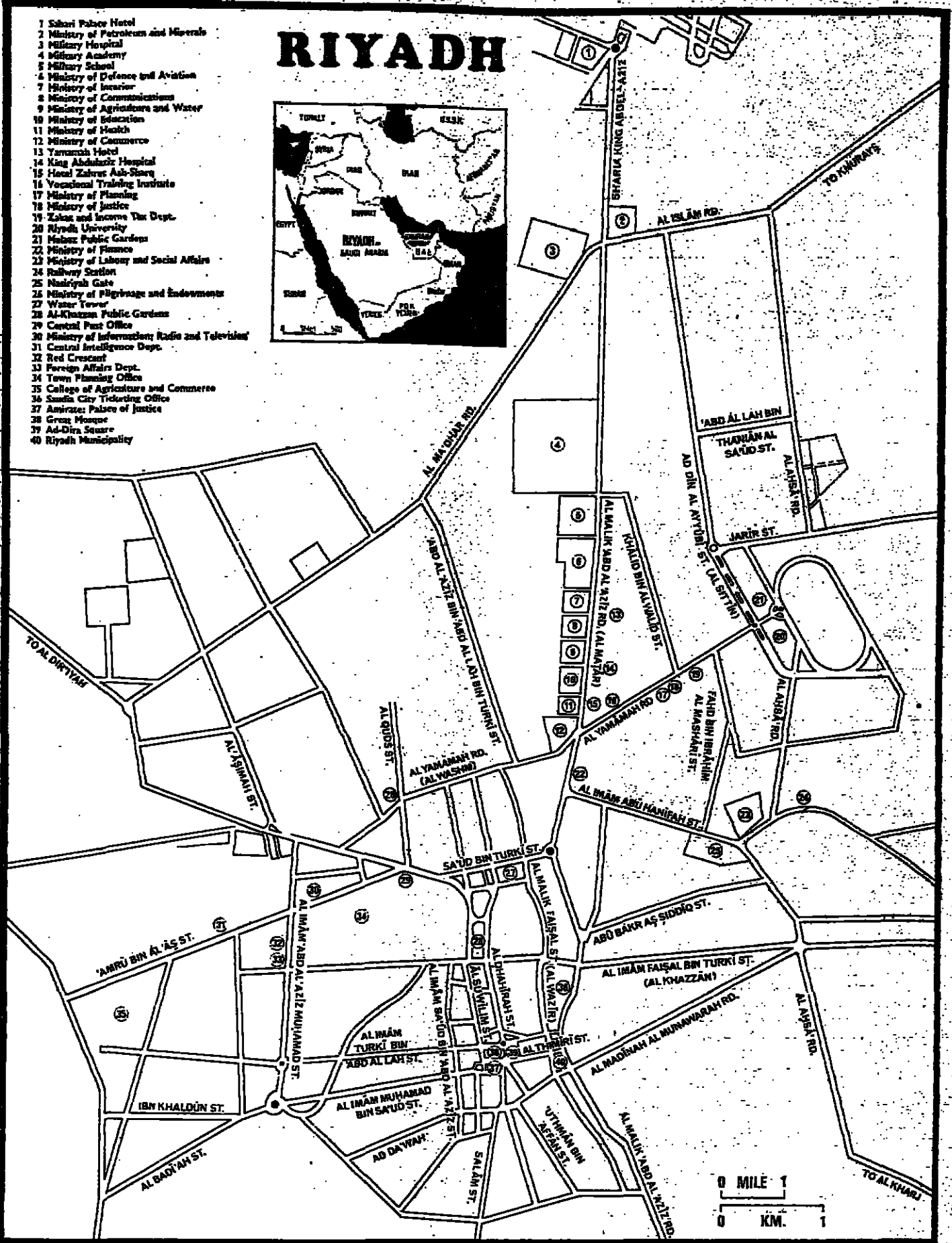
## Extension

Distant prospects are an extension of the present Riyadh-Dammam line and a Jeddah-Mecca commuter railway. The Saudi Railway Authority, based in Dammam, has stated that a committee in Riyadh will soon commission feasibility studies for these.

Meanwhile representatives of the transport Ministries of Jordan, Syria and Saudi Arabia met last month in Riyadh to discuss the invitation of international proposals to reconstruct the 1,300 km. Hejaz Railway, built by the Porte in the early 1900s as a pilgrim line from Damascus to Medina. Reconstruction and reactivation of the whole line would cost upwards of \$500m.

A similar plan was mooted in the 1960s and studies prepared, but the project was shelved with the outbreak of the June, 1967 war. In its present form the project looks like a very distant possibility, and very much dependent on an overall settlement with Israel.

Jamie Buchan



Housing the poor and the needy has become extremely important in Saudi Arabia, a country where accommodation is expensive anyway. But material supply has improved and home builders have been given top priority.

# Housing

THE SECOND Plan's stated intention of "providing every family in the Kingdom with decent housing" is meeting with mixed success. Because of a slow start by the Ministry of Public Works and Housing, the largest single commodity charged last year at Saudi Arabia's ports.

Pressures on labour and supply persist; however, partly because both the private and public sectors must compete. According to figures released with an ambitious military

building programme. At the new military cantonment at Hafr Al-Baton alone, 6,500 houses are planned, though the Defence Ministry has shown itself wary of aggravating the problem. All the estimated 1m. tons of materials for the cantonment will pass through a specially built port at Ras Al-Mishab on the Gulf, while offices will be opened abroad for the recruitment of labour. For the State housing programme, two ports at Qudayma north of Jeddah and Ras Al-Ghar north of Dammam were commissioned by the Ministry of Public Works and Housing exclusively to supply housing projects, and should be completed by the end of the Saudi financial year in June.

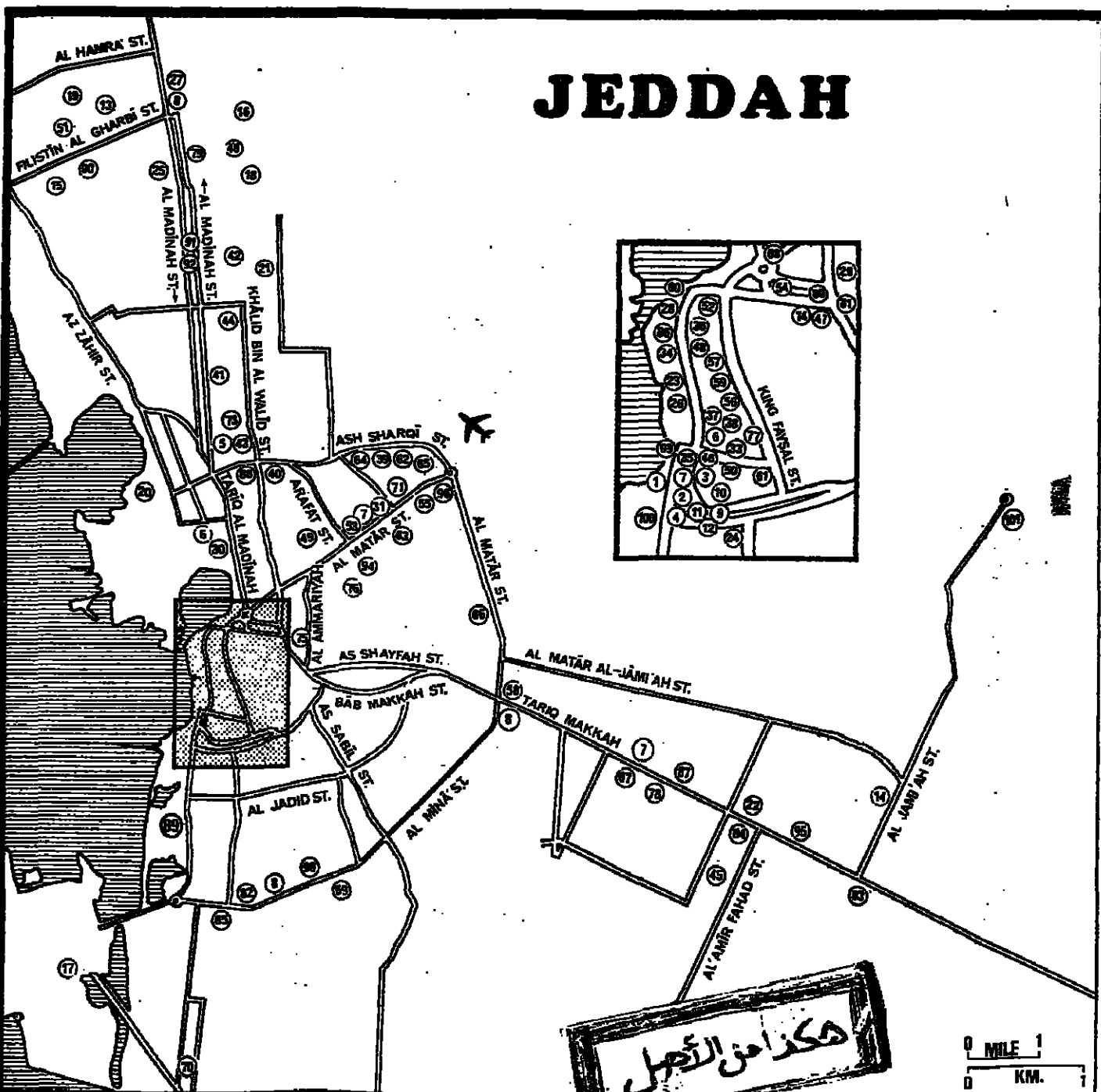
With accommodation now costing up to half as much again of an expatriate salary, it is invariably borne by his employer, which has contributed greatly to the soaring prices of tenders from European and U.S. companies. The problem, now is expense, not shortage, for with a current surplus of middle level housing companies can pick and choose. Not so fixed-income tenants. In Government servants or Muslim expatriates, who are faced with rents of up to ten times the pre-1973 rate.

Property speculation is as lively as ever, with new blood pouring in to join the old-established entrepreneurs in this lucrative area. As in many other matters, the Saudi attitude is: if you cannot beat it, restrict it. The Kingdom expressly stated that the land would be re-purchased at cost if it was not developed within three years.

But housing the poor in Saudi Arabia is the most pressing problem for the Saudi Government. Since before 1973, the drift from the country to the cities has led to overcrowding and the proliferation of sub-standard dwellings. Shanty towns are almost as common a sight as in Iran. The wholesale decay of old quarters through the draining of their resources by unimaginative planning has compounded the problem.

One of the two new ministries created in October, 1975, the Ministry of Housing and Public

Jamie Buchan





# SAUDIA'S UNPRECEDENTED GROWTH

According to data recently compiled by the International Air Transport Association (IATA), Saudi Arabian Airlines ranked first among the 107 IATA member airlines, with a 78% increase in passengers carried during 1976, compared to 1975. An even greater increase of 1,770,000 in 1977 brings the total passengers carried last year to 4,700,000. The 6,400,000 passengers expected in 1978 will be six times the one million or so passengers carried by Saudia just five years ago in 1973.

## Taking off from small beginnings

Saudia has advanced a long way since 1945, when the airline's formation with 3 Dakota DC-3s replaced primitive means of long distance travel across the Kingdom. Communications inside the Kingdom were revolutionised when King Abdulaziz bin Abdulrahman Al-Faisal Al-Saud, the founding father of Saudi Arabia, put to good use a DC-3 Dakota presented to him by the late President F. D. Roosevelt on 27 May 1945. The acquisition of two more DC-3s in the same year marked the true start of domestic airline operations in Saudi Arabia.



The possibility of travelling comfortably and avoiding the lengthy land routes traversing the Kingdom decreed instant popularity for the novel form of air transport. Saudia's activity in the early years was to carry passengers and mail - somewhat irregularly - between Riyadh, Jeddah and Dhahran.

When it became evident that three DC-3s were not sufficient to cope with the demand they had created, five DC-4s and five Bristol Freighters were added to the fleet. With thirteen aircraft of its own, Saudia was then firmly in business and on the path of an expansion programme that has continued uninterrupted ever since.

In the year 1962, which is regarded as a cornerstone in the history of the airline's development, Saudia decided to purchase ten Convair 440s that overnight put Saudi Arabia's cities within reach of each other in a matter of hours rather than days. The new aircraft also brought an unprecedented degree of comfort to air travel with their pressurised air-conditioned cabins, and provided convenient transport for Muslims on pilgrimage to the Holy Cities of Islam in Saudi Arabia.



## Saudia goes International

With the airline starting to play a major role in the country's development, its worth was well proven and Saudi Arabia became increasingly air-conscious. More and more equipment was required, and in 1960 three DC-6s were purchased to start scheduled services to other Arab countries, to earn an even bigger share of the pilgrim traffic, and to move vital cargoes quickly and efficiently.

An important event in the history of the airline took place in 1963 when the late King Faisal pronounced by edict the formation of Saudia as a corporation, allowing it to operate as a commercial entity with its own Board of Directors.

In that year also a decision was made to purchase the world's then most sophisticated jet aircraft, and bring Saudia into the leading ranks of Middle Eastern airlines. With the acquisition of two new Boeing 720 B's, Saudia became the first airline in the Middle East to fly the big jets, and was able to extend its international network beyond the Arab countries.

By 1967 the airline had built up an exemplary safety record and standard of service when it was welcomed to membership of the International Air Transport Association (IATA). Two years earlier Saudia became a member of the Arab Air Carriers Organization (AACO) and various air travel associations.

Saudia began flights to Tripoli, Tunis and Casablanca in North Africa via Beirut and in so doing established the first direct link between the Arab East and the Arab West. Also in 1967 the first European route serving Geneva, Frankfurt and London was opened.



A non-stop Jeddah to London service was inaugurated on 1 May 1968 using two Boeing 707 intercontinental jetliners. Then in 1971 a direct service between Jeddah and Rome was begun, and an all-cargo jet service between Europe and the Kingdom provided the fastest onward connecting service for transatlantic cargo.

In 1972 Saudia's services reached 49 cities in three continents, including a domestic jet network linking 20 centres in the Kingdom. Its jet fleet became the most modern in the Middle East, with two Boeing 707's, two Boeing 720 B's and five new Boeing 737-200's,

the most sophisticated twin jet of its size in the world.



To improve internal organization, Saudia opened its own Data Processing Centre in Jeddah, equipped with IBM 360/20 computers for use in its day-to-day business and long-term planning.

For the first time in a single year, 1973 saw Saudia carrying over a million passengers on scheduled services in addition to the many thousands of pilgrims and teachers carried on the airline's special flights (Saudi Arabia employs thousands of teachers from nearby Arab countries).

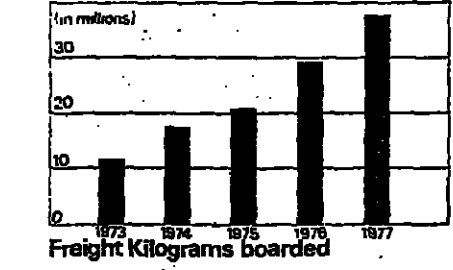
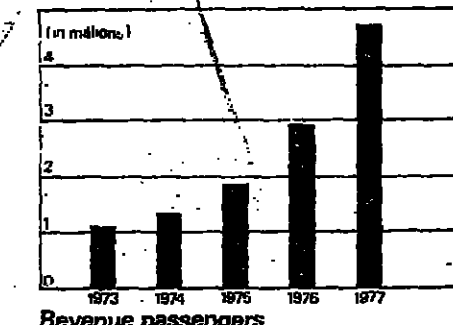
To celebrate thirty years of operation, in 1975 the wide-bodied long range jet TriStar was introduced. Thus Saudi Arabia was again the first M.E. carrier to enter the new jet age of wide-bodied aircraft. Also, domestic fares were reduced by 25% to ease the burden of the travelling public. It was therefore not surprising that over the next year ten new aircraft were added to the fleet and domestic passengers alone skyrocketed by 80%.

To simplify this passenger movement and give more convenience to the customer the "Arabian Express" shuttle service was introduced in June 1976 between Jeddah and Riyadh. Immediate success brought load factors exceeding 80%, and the total passengers carried each month averaged 44,000. In August, the service was extended to the Riyadh - Dhahran sector.

The Arabian Express service with its frequent flights, minimal formalities, and reduced fares, has opened up domestic air travel to a much wider public, and it is expected that passengers carried per month will soon exceed 100,000 on the Jeddah - Riyadh sector.

## Expansion continues

Last year saw further expansion throughout Saudia. The number of passengers carried was increased by 60% and there was a similar increase in freight. A new passenger route was opened to Tehran and an "Airbridge" was established between the Kingdom and Bahrain in cooperation with Gulf Air. This airbridge with 18 flights every day coupled to the other Saudia services now provides rapid links east-west across the whole of Arabia.



Two Jumbo jets (Boeing 747's) were leased in June to provide direct flights from Riyadh to London five times per week, as well as



daily flights to Cairo. There are now 15 flights per week between the United Kingdom and Saudi Arabia.

## Sophistication on the ground

To support this operational growth required an increase in employees to more than 10,000. Two-fifths of these employees are directly serving the customer at offices and airports spread over four continents.

Many recent improvements provide better service for the travelling public and cargo customers. An automated reservation system has been installed; new flight operations control centres have been established; completely modern freight handling methods have been introduced at Taif and Abha; Jeddah and Riyadh will have brand new cargo facilities this year; automatic flight management systems have been installed in the Lockheed TriStars; modern passenger facilities have been provided at Riyadh airport, and a new departure terminal has been equipped at Jeddah.

In space, high above the Indian Ocean and the Atlantic Ocean, two satellites transfer messages from Saudi Arabia to London and bring back the answers from a computer. The response time is less than three seconds which is comparable with or better than all other communications links of this type. This automatic reservations system replaces manual methods which used to handle the thousands of messages each day at great cost in time and effort.

Reliability is assured by using two channels of communications over the whole

route. Messages go by microwave and cable from Saudi Arabia to the master computer in London via either the Indian Ocean satellite or the Atlantic Ocean satellite. Earth stations in Riyadh and Taif transmit the ground signals into space.

In Saudi Arabia the system is on-line from the Jeddah Network Control Centre (NCC) to all the main Saudia reservation offices. The NCC is unique in its design and one of the most advanced in the world.

Passenger reservations from Saudia offices as far apart as Los Angeles, New York, Stockholm, Geneva, Casablanca, Bombay and Kuala Lumpur will be linked into the system by teletype. Soon the master computing facility will handle Saudia business from the United Kingdom and Egypt.

British Airways secured the contract for the automation of the Saudia reservations system. In competition with several major airlines with systems marketing experience, they were selected because they were large enough to provide all the necessary developmental support.

In Jeddah the airline has a computerised automatic call distributor system which is unique in Europe, Africa and Asia.

The ultra-modern communications network being established by Saudia will offer further attractive features. The master telephone system now integrates all Saudia telephones in Jeddah with central control of 1,800 extensions. Up to 14 operators can handle any incoming call so that optimum efficiency is obtained. There is an ultimate capacity of 5,400 extensions, with the necessary number of city exchange lines.

The next planned innovation is a "direct in-dialling" feature so that an outside caller can self-dial any Saudia extension.

## Saudia's modern, growing base

At Jeddah international airport a spacious well equipped departure lounge was completed in 1976. Construction of a completely new departure terminal is now well advanced, and by 1980 the new International Jeddah airport will be operational.

Saudia operations planning moved to a new Jeddah control centre in 1977 with up to date facilities. In London, a flight operations centre was established 12 months ago. This provides round-the-clock coverage for all European operational functions including crew scheduling, crew briefing and flight planning. Other flight operations offices were established at Riyadh and Paris airports.

Currently under construction in Jeddah is a new operations training building which will provide completely modern facilities later this year. New equipment for flight simulation, crew procedure training and cabin staff training will be installed.

During the past two years Saudia has been developing a new housing complex for staff on the outskirts of Jeddah. Known as "Saudia City" it will eventually provide 3,000 homes and is already accommodating more than 300 families. A new Social, Athletic and Cultural Centre in Jeddah provides Saudia staff with a range of sports and other activities.

Just completed this month is an extension to Saudia's headquarters building to provide a much needed acre of additional floor-space. (See below).

As well as passengers on scheduled services, every year a massive movement of pilgrims (Hajjis) takes place when millions visit the Holy Cities of Mecca and Medina. In 1977, in conjunction with other airlines, over 500,000 Hajjis were airlifted. In the smoothest ever operation of this type Saudia showed how its facilities could be expanded to efficiently handle this large extra number of passengers over a very limited period.

## Saudia's specialist services

Saudia also caters for other special needs. Special Flight Services (SFS) is a separate division of the airline which operates a fleet of light aircraft. The division has the important job of carrying cabinet ministers and senior government officials on affairs of State. SFS also provides a charter service to remote locations in the Kingdom not covered by Saudia's scheduled services.

The addition of two Grumman Gulfstream jets in 1976 boosted the non-stop flight capability to 3,000 miles, and late in 1977 this highly successful venture was expanded by the addition of two more Gulfstreams.

From the plans laid in 1963, when the Air Cadet Programme was founded, training



activities have multiplied to keep pace with expansion. In 1977 the highest ever number of flight crew received training and Saudia now has 450 qualified pilots and engineers.

In addition to the usual training requirements associated with airline operations, Saudia is playing a unique role in manpower development. The airline recruits the majority of its work force from students at varying educational levels from junior high school graduates to university graduates. They are enrolled in programmes of two to seven years in duration and on successful completion are assigned permanent positions.

Besides flight training and long range educational programmes extensive courses are conducted in aircraft maintenance, sales and service, cabin attendant services, ticketing and reservations, operations services, finance and data processing.

There is also a management development programme which began in 1972 and receives an equal degree of emphasis. Its objective is to prepare potential managers to fill vacancies in the corporate management structure and to upgrade the general standard of management.

Saudia's Fleet

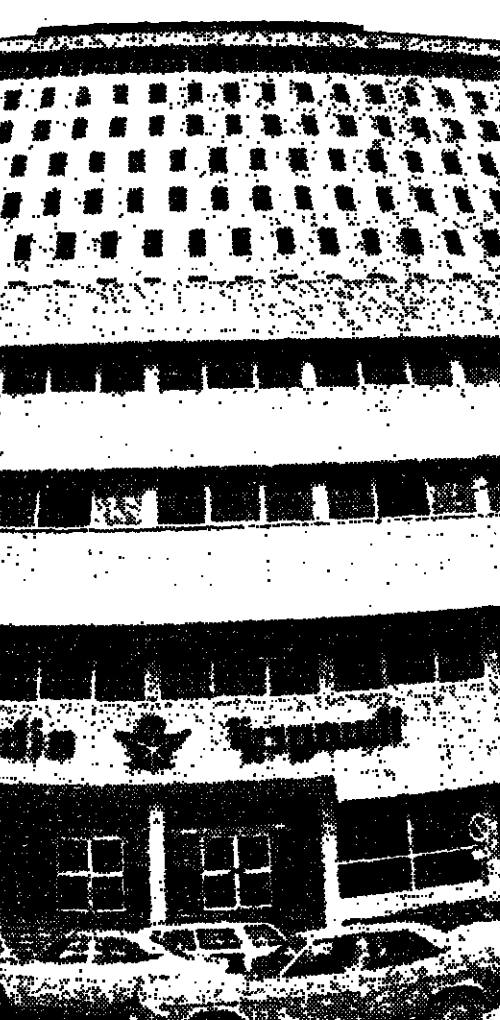
AIRCRAFT TYPE	1973	1974	1975	1976	1977
LOCKHEED TRISTAR L-1011	-	-	2	5	8
BOEING 707	4	4	7	7	10
BOEING 720-B	2	2	2	2	2
BOEING 737	5	7	7	14	16
BOEING 747	-	-	-	-	2
DOUGLAS DC-6	-	-	-	-	2
DOUGLAS DC-7	5	2	3	3	-
CONQUEROR 340	6	6	6	-	-
APACHE 225	2	2	2	2	2
CESSNA 441-B	-	-	2	2	2
BEECHCRAFT	-	-	2	2	2
FOKKER F-27	-	-	3	3	3
GRUMMAN DC-9	-	-	-	2	4
TOTAL	24	25	38	42	54

\*leased

The table shows the growth of the Saudia fleet during the last five years. Maintaining this large and diverse fleet of aircraft presents a continuous challenge to the two thousand men in Technical Services Division, particularly since inspection of all equipment used on Saudia aircraft is carried out to standards exceeding those stipulated by both manufacturers and world civil aviation authorities. Similar thoroughness is applied even to equipment that will in all probability never be called into use such as emergency life rafts and jackets. More than one rival in every seven yards of revenue is allocated for maintenance.

## Future expansion

Although the second 5-Year Plan of the Kingdom is generally regarded as being ambitious, Saudia exceeded the five year targets for passengers and fleet growth in the first two years.

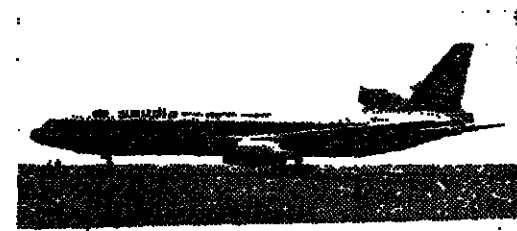


Saudia's 13-story headquarters in Jeddah featuring the recently completed extension on two floors.

Saudia's rapid advance is a direct result of the material and moral support of the government under the wise and able leadership of His Majesty King Khalid Bin Abdul Aziz and His Royal Highness the Crown Prince Fahad Bin Abdul Aziz and the relentless efforts put up by its employees who undergo extensive training programmes in accordance with the highest international standards.

When interviewed in Jeddah last month Sheikh Kamil Sindi, Director General of Saudia, emphasised the importance of the airline's investment in training. Several training centres have been established as well as the air cadet programme which is unique in the Middle East. At present Saudia has 158 trainees studying on courses outside the corporation in addition to 162 undergraduates, of which 123 are at universities outside Saudi Arabia. For operations and maintenance there are currently 185 being trained as pilots, flight engineers and flight operations officers, and 141 as technical staff. Altogether 2500 employees have been under training during the last six months including 818 who have enrolled themselves in the education assistance programme.

Another important factor is anticipation of the fleet requirements by effective planning and research. Saudia's fleet now has 54 aircraft including eight TriStars.



Three years experience with the Lockheed TriStar have shown it to be the most comfortable large jet for long distance travel. Also, Saudia is the first airline to equip its TriStars with the new computerised Flight Management System, the only such automatic device in existence. These are the most advanced wide-bodied jets in the world and are fitted with the Rolls Royce RB211-524 engines which gives greater performance and a range up to 4,450 miles.

By the end of 1978 there will be 10 advanced TriStars in the fleet as well as 19 Boeing 737, two Boeing 720, 10 Boeing 707, and two leased Boeing 747. Services and facilities will be further enlarged to give a better service to both international and domestic passengers.

Sheikh Kamil Sindi was in London last December at a celebration to mark the tenth year of operation in the U.K. Ten years ago Saudia had a single Boeing 720 on the route Jeddah, Beirut, Geneva, Frankfurt, London, with a seating capacity of about 500 per month.

From such small beginnings Saudia has become the largest Middle East Airline with 12 passenger flights per week from London, mostly in wide-bodied jets such as the Boeing 747 and the Lockheed TriStars. This gives a seating capacity of over 15,000 per month. There are also three cargo flights per week from London, carrying 300 tons per month.

Another indicator of Saudia's huge growth in the U.K. is the number of its local staff. Ten years ago Saudia employed five people in London. Today that number has risen to 215. Figures for passengers flying from London are 1975 - 62,000, 1977 - 78,000, and for 1978 a figure of 100,000 is forecast.

A new route to Athens is planned for this summer. Extended routes to the East as far as Japan and to the West as far as the United States are being considered.

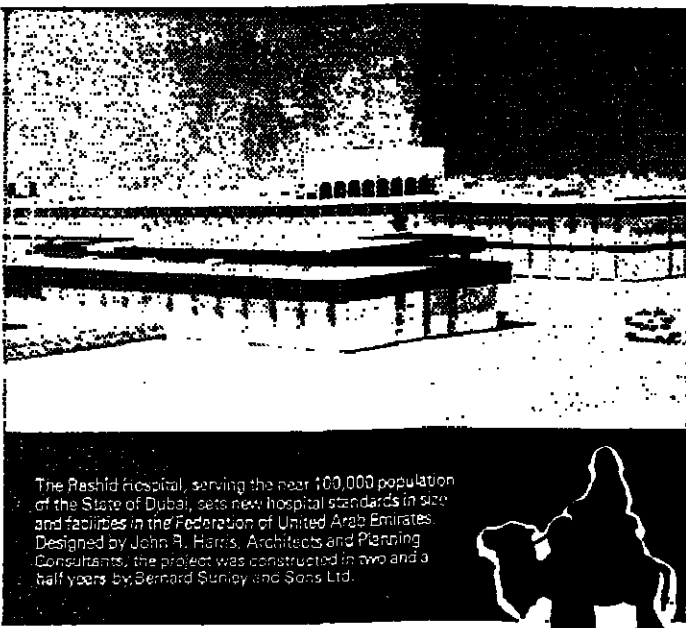
Between 9 and 10 million passengers are forecast for 1980.

In 1979/1980 Saudia will operate an "International Airport Catering Unit" at the new Jeddah International Airport. This Catering Unit will give the airline total supervision of its food requirements including hygiene and bacteriological control, and provide the means for maintaining and improving the high quality of its food service. The unit is being established with the assistance of S.A.S. Catering Services, who are leaders in the field of airline catering.

Sheikh Kamil Sindi paid tribute to the continual support he had received from the Chairman of the Board of Saudia, His Royal Highness Prince Sultan Bin Abdul Aziz, Minister of Defence and Aviation, and his Deputy Prince Turki Bin Abdul Aziz.



## SAUDI ARABIA XXXII



The Rashid Hospital, serving the near 100,000 population of the State of Dubai, sets new hospital standards in size and facilities in the Federation of United Arab Emirates. Designed by John A. Hens Architects and Planning Consultants, the project was constructed in two and a half years by Bernard Sunley and Sons Ltd.

## Rashid Hospital

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There is no difficulty in finding the money to finance

Saudi Arabia's ambitious plans for the expansion of education.

But some problems, such as the shortage of Saudi teachers, cannot be dealt with overnight, and it is accepted that change to the educational structure will have to proceed slowly if the conservative nature of Saudi society is not to be damaged.

## Education

FEW MINISTRIES in Saudi Arabia bear greater responsibility for how its citizens will survive the stresses of modernisation than those of education and higher education (created separately in October, 1975). In their hands is the dilemma of how to adapt conservative Islamic traditions to modern and more independent and materialistic thinking without losing sight of the essential virtues and values of Saudi society. There is, too, a simultaneous drive to produce Saudi manpower to cope with the country's economic development. The result is inevitably an educational system shot through with paradoxes and contradictions.

The Saudi Government is only too aware of its tasks in this field and has not shied away from spending on a huge scale on this sector. Education has regularly taken between 11 and 13 per cent of the annual budget, (\$2.3bn. in 1977-78), third or fourth after defence, communications and municipal and rural affairs. Over 15 per cent—\$7.74bn. (\$2.1bn.) out of \$4.98bn. (\$1.42bn.)—of the current development plan is being spent on education. Expansion has thus been considerable. There are now over 1m. pupils at all levels, compared with about 700,000 at the beginning of the decade. The increase has been most marked at intermediate and secondary levels. Last year, the equivalent of a new school was opened every day.

The 1975-80 plan has ambitious targets. The number of elementary pupils is to rise from 618,878 to 1,041,163 (and schools from 2,389 to 4,467); on the intermediate level from 120,410 to 230,052 (schools from 557 to 991); and on the secondary level from 35,444 to 72,496 (schools from 141 to 231). Students in teachers' training colleges are to rise from 15,689 to 27,467 (the number of institutes from 48 to 69); in technical institutes from 3,685 to 14,405 (schools from 16 to 37); adult literacy programme is to expand from 84,433 pupils to 519,831 (and schools from 1,114 to 3,327); and on the university level graduates are to rise from 1,703 to 7,158, while enrolment which in 1976-77 according to the Higher Education Ministry was 23,610, of whom 14 per cent were women, is to rise from 15,327 to 42,965.

The annual report of the Saudi Arabia Monetary Agency grandly sums up the government's priorities whereby "the emphasis is not placed merely on expansion of the number of educational institutions but also on uplifting the quality of education through better planning of school facilities and equipment, upgrading school curricula with a view to provide (sic) a scientific and practical orientation to the learning process, and improving educational methods by recruiting qualified teaching staff and school administrators."

The paradoxes which this educational drive throw up are painful. The disadvantages of Higher Education, the long-term existing teaching methods are

NUMBERS OF STUDENTS AND TEACHERS BY  
LEVEL OF EDUCATION

	1975-76*				
	Total	Male	Female	Teachers	Schools
	pupils	pupils	pupils		
Nursery .....	15,485	8,957	6,528	439	92
Elementary .....	686,108	439,502	246,606	34,483	3,497
Intermediate .....	154,488	106,671	47,817	8,788	718
Secondary .....	48,826	34,970	13,856	2,616	212
Teacher training .....	14,651	10,587	4,064	1,139	62
Technical education .....	4,063	4,063	—	619	21
Special education† .....	1,804	1,550	254	630	45
Higher education .....	26,437	21,127	5,310	2,133	—
Adult education‡ .....	95,341	68,082	27,259	13	1,743
Others .....	10,791	9,818	973	316	111
Total .....	1,057,994	705,327	352,667	51,176	6,501

\*Includes private sector of 62,220 pupils and 1,411 teachers, especially at kindergarten and elementary levels. †Specially for deaf and blind. ‡Anti-literacy schools, all but 13 teachers are part-timers.

	1976-77§		
	Total pupils	Teachers	Schools
Kindergarten .....	832	51	3
Elementary .....	466,836	25,188	2,987
Intermediate .....	123,548	7,926	669
Secondary .....	44,036	2,263	190
Teacher training .....	10,363	815	39
Technical education .....	5,169	785	27
Special education .....	1,690	711	52
Higher education .....	n.a.	n.a.	n.a.
Adult education .....	n.a.	n.a.	n.a.
Others .....	n.a.	n.a.	n.a.
Total .....	652,474	37,739	3,967

§Includes Ministry of Education schools only, others excluded. As at October 29, 1977. Source: Ministry of Education.

all too plain. Teaching is not an attractive profession to Saudis when compared with the attractions of other jobs. As a result the dependence on non-Saudi Arabs, mainly Egyptians, Jordanians and Palestinians, is high. In 1975-76 non-Saudis accounted for over half the number of teachers, with the greatest concentration of Saudis—78 per cent—in elementary schools. These foreign teachers are regarded as being industrious but too often not sufficiently interested in education to experiment with new techniques. As a result the traditional methods, with enormous dependence on rote-learning, with its origins in the rhythmic Koran, and unadventurous and unquestioning respect for the written word, are preserved.

Nevertheless, the drive to Saudiise teaching is going ahead. According to Dr. Saud Jammaz, Vice Minister for Technical Affairs, 90 per cent of Saudi teachers are graduates of the equivalent of secondary school. Ten teacher training colleges have been set up to accept half its pupils from secondary school direct and the other half from current teachers. The aim is that within a decade all elementary teachers will have had at least two years of college education.

## Religious

Understandably religious teaching plays a major part in education, and 12 out of 150 hours of credits is required on religious studies, even for a full B.Sc. course at university. Nevertheless, the drive to Saudiise teaching is going ahead. According to Dr. Saud Jammaz, Vice Minister for Technical Affairs, 90 per cent of Saudi teachers are graduates of the equivalent of secondary school. Ten teacher training colleges have been set up to accept half its pupils from secondary school direct and the other half from current teachers. The aim is that within a decade all elementary teachers will have had at least two years of college education.

According to Dr. Mahmoud Safar, Deputy Minister of Higher Education, the long-term aim is to raise the Saudi ele-

recognised career structure, the facts of the present system on the whole reflect the dominance of tradition, influence and particular families rather than real ability.

According to Dr. Jammaz there are three main thrusts in educational policy at present. The first, already mentioned, is to improve the standard of teachers. The second is to reform curricula. Currently, curricula—except at the higher levels—are generally modelled on those of other Arab countries, in particular those with unsuitable Egyptian-French characteristics. Progress here has been disappointingly slow, but even so efforts are being made to reshape the approach to subjects by defining them less individually, and more as part of broader topics. Thus history is presented in the context of social studies, and arithmetic as part of general mathematics.

The third drive is directed towards school building. It is acknowledged that this is perhaps the easiest aspect to achieve and that the production of schools does not ensure a new educated population. But in defence of this, officials argue that the massive building programme does ensure that the framework for educational progress exists.

But leaving these problems aside, the educational programme has had some undeniable benefits. One is the subsidised school meal system which has expanded from 17,866 pupils (costing SR3.1m. — \$900,000) at the beginning of the decade to 488,166 in 1976-77, costing SR342.7m. (\$100m.). A second benefit has been in having difficulties with their educating and help to settle the bedouin. It is impossible to cope with those who are perpetually

on the move, but in 1977 there were four mobile teams catering for the tribes when they settle near their waterholes.

Examinations have been particularly problematical, and teachers, especially on the secondary level, proven to be falsity marks. But again, under American influence, there are efforts to concentrate less on the outcome of one exam a year and more on spreading the load of assessment through a combination of one examination and performance over the year.

In higher education, there is almost total worship of the doctorate. At present there are perhaps 300 PhDs in the existing six universities and over 2,000 studying for MAs at least out of a total of 20,000 students studying abroad. Of these at least 8,000 are in the U.S., and the remainder in Britain, Europe, the Middle East and Pakistan.

## Existing

Within the Kingdom, the aim is not so much to establish new universities (although the possibility of setting up an exclusively female university is at present under study) but in building campuses in new centres attached to existing universities.

But there is now an increasing trend on the lower levels of higher education to keep students at home. The first and tacit reason is to limit the exposure of students to the western way of life. The second stems from concern about costs, for in the last year some universities have been second benefit has been in having difficulties with their educating and help to settle the bedouin. It is impossible to cope with those who are perpetually

of these facilities.

One particularly striking aspect has been the expansion of women's education. Possibly because there are fewer distractions, their academic record is frequently better than those of the men. But careful segregation is practised to ensure that shared facilities are not used simultaneously, and lectures are watched on television. Paradoxically, the Directorate of Girls Education is a governmental authority independent of the Education Ministries. But while this advance must be recognised as a bonus, it will eventually raise difficult questions about what the role of women should be in Saudi society.

And the standards reached in general? Independent observers reckon that graduates of the University of Petroleum and Minerals in Dhahran, which has a special status and links with American universities, are on a par with degree-earners in either the U.S. or Britain. Elsewhere, their graduate standard is reckoned to be on a first-year university level. There is, too, the prospect that standards may slip as universities have been ordered recently to accept any Saudis with a secondary level certificate rather than insisting on specific levels of qualification.

Thus the system which emerges is uneven in shape with pockets of sophistication and bright, up to date ideas. But it is attached basically and broadly to a system which badly needs reform and modernisation. But these changes will have to come around gradually, as officials are only too aware, if irreparable damage is not to be done to the conservative nature of Saudi society.

A.McD.

## UNIVERSITIES AND COLLEGES IN SAUDI ARABIA—1978

	University	Campus/ city	Year opened	Student enrolment (estimated)				Girls
				1974-75	1975-76	1976-77	1977-78	
1	University of Riyadh .....	Riyadh	1957	7,000	8,000	9,000	10,000	yes
2	Islamic University .....	Medina	1961	200	300	400	n.a.	no
3	University of Petroleum and Minerals .....	Dhahran	1963	1,200	1,400	1,750	2,200	no
4	King Abdul Aziz University .....	Jeddah	1967	3,000	4,000	5,500	7,500	yes
		Mecca					n.a.	
		Medina					n.a.	
5	Imam Muhammad ibn Sand Islamic University .....	Riyadh	1950	200	300	400	500	no
		Abha						
		Gassim						
6	King Faisal University .....	Dammam	1975		100	200	350	yes
		Hofuf	1976			75	200	
7	King Abdul Aziz Military Academy (Ministry of Defence) .....	Riyadh	1955				n.a.	no
8	Internal Security Forces Academy (Ministry of Interior) .....	Riyadh	1935				n.a.	no
9	King Faisal Air Force Academy (Ministry of Defence) .....	Riyadh	1970				n.a.	no

NOTES: In addition to about 25,000 college-level students at the various institutions of higher education in Saudi Arabia, there are an estimated 20,000 Saudis studying at universities abroad, of whom half are in the U.S. The numbers abroad jumped dramatically due to the large numbers sent on military scholarships, and to the addition of wives of students to the rosters of eligible students for scholarships.

In the figures above, part-time students and students-by-correspondence (mostly women who are not allowed physically to attend classes) are not included. There are an additional five junior colleges in Riyadh, Mecca, Gassim, Medina and Abha for teacher training. There are an additional two science and mathematics teacher training centres in Riyadh and Dammam.

Source: Hassan el-Husseini, University of Petroleum and Minerals.

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مكاتبنا في الرياض



The contracting market in Saudi Arabia is the biggest in the world, and the rewards for a foreign operator prepared to abide by the rules and run the contract according to the local conditions are considerable. With the growing emphasis on industrial projects, the trend now is towards the setting up of joint Saudi-foreign companies with specialist capabilities.

## Contracts

NOBODY CAN fail to be impressed by the sheer scale of the construction operation now going on in Saudi Arabia. Whether one is looking at the series of equipment parks which stretch for miles after mile down the Khobar-Dammam road, or trying to grasp the cost of some of the biggest projects (the gas gathering system alone is now priced at \$500-plus), it is not difficult to believe that the building of Saudi Arabia's infrastructure and industry makes the Kingdom the biggest contracting export market in the world at the moment.

So inevitably over the past 12 months, contractors have been very sensitive to every nuance of Government policy, following the slowdown in spending which has involved some big projects being postponed indefinitely, and the Government's cancellation of a number of major contracts in the early part of last year. On that occasion the Ministry of Industry threw out the lowest bid or the telecommunications extension programme and rewarded contracts for the construction of some power stations. Third World firms—alleging both cases that the Western contractors involved had been conspiring together to inflate their prices. In practice the end did not lead to any general discrimination against Western firms, which it was said at the time might follow from the cancellations—though it is hard to see how a Government could have aided continuing to rely on Western firms after what its preferences might have been.

In as much as any bias can be discerned at present in the

Government's award of contracts, it is that all major contracting nations should receive a share of Saudi business, that Third World companies especially should be given a chance to prove themselves, and that in the recruitment of labour there should not be too great an influx of manpower from any one country.

Of course the whole cancellation "crisis" raised the questions of whether the Saudi Government was not an unduly inflexible client for contractors, and whether the profits to be made in contracting in the Kingdom were anything like as big as they appeared to be. But now that the dust has settled, the consensus among firms that have got used to working in Saudi Arabia is that if a contract is run well by the contractor, the profits can indeed be considerable. Similarly it is felt that the Government's terms, although different in some respects from the international norm, are not unreasonable—on balance.

Generally speaking both the Saudi Government and Aramco award contracts on a fixed price lump sum basis, because although this may work out more expensive, it seems that the Government at least sets store by knowing in advance what each job is going to cost it, and anyway lacks the manpower to monitor too many escalation clauses or cost plus contracts. Not unnaturally this practice has made contractors in Saudi Arabia acutely inflation conscious—all the more so because inflation rates in the Kingdom have recently been high and over the two or three year life of some contracts inflation rates are obviously quite impossible to predict. Western contractors often claim that here they are at a disadvantage vis-à-vis Asian firms, which can put in bids based on optimistic predictions of inflation rates, in the sure

knowledge that the support they receive from their governments will protect them against loss should their projections prove wrong.

That at least is the theory of the disadvantages in the system. In practice quite a number of contracts do contain escalation clauses—sometimes linked to the cost of living in the Kingdom or to an iron and steel price index. Also a lot of the biggest contractors, and particularly those firms which are also involved in project management, come in on the really massive contracts on a cost plus basis—though their sub-contractors have fixed price contracts. In fact it would be impossible to run the biggest contracts on a fixed price basis. For instance, there are still major decisions to be made on the type of equipment to be used in parts of the seawater treatment plant which is being installed to reinject pressure into the south Ghawar oil field—and this contract has been under way for four years already.

### Purchasing

At the same time there is considerable scope in some cases for a contractor to avoid agreeing a final price until he has completed most of his purchasing of materials—as Chiyoda did with the Riyadh and Jeddah refinery contracts. And it is also possible sometimes for contractors to profit from their clients' failure to honour supply clauses, if, for instance, they fail to provide materials promised on the due date. In these circumstances there can be a 30 or 40 per cent. difference between the "going-in" and the "coming-out" price.

When it comes to actual bidding procedure, the system in Saudi Arabia is that Aramco now needs to establish a Saudi company with Saudi partners or

all but that the Government requires a bond of 1 per cent. to be posted when the bid is submitted. When a bid is accepted this bond is replaced by a 10 per cent. performance bond, and on the receipt of the first advance payment from the Government the contractor also provides a cash bond, under which it guarantees to repay to the Government any cash that it has received beyond the amount due for work already completed should it default on the contract at any stage. Finally on completion of the job the contractor provided a 5 per cent. maintenance bond to guard the Government against the consequences of faulty workmanship. Only very rarely does it seem that there have been instances of bid or performance bonds being called, and nor as yet has there been any published instance of a 5 per cent. penalty clause for late completion of work being enforced.

The normal advance payment in Saudi Arabia is 20 per cent. (double the international norm). Then the contractor receives 55 per cent. of the installed value attached to each item in the contract as the relevant material arrives on site, followed by a further 20 per cent. paid in stages as the job is completed and finally the remaining 5 per cent. on acceptance—this 5 per cent. being replaced by the maintenance bond. Apart from the more generous advance payment, this system differs from international practice in that the 55 per cent. material on site is split into two parts—one of them being paid on delivery of the materials to the contractor job.

To bid at all for a contract in Saudi Arabia a contractor now needs to establish a Saudi company with Saudi partners or

shareholders or to enter a joint venture agreement with a Saudi partner. Until recently, though, a firm could make do with just a sponsor, or, if it was working for the Government, it could obtain a temporary licence to operate without a sponsor.

### Formula

Under any formula—from sponsorship to joint shareholding company—the role of the Saudi parties involved can vary enormously, according to the abilities and preferences of the foreign firm. In some cases the foreign firm may want nothing more than to fulfil the legal requirements and then be left alone to "do things its own way." But in other cases the Saudis may be used to help find accommodation, office space, land for equipment parks and warehouses and facilities such as telephones, as well as helping sort out supply problems and arrange block visas for the workforce, which on any significant size job must be provided and housed by the contractor. (Since the end of the Hajj last year, the Government has apparently become more worried about the problem of pilgrims staying behind in Saudi Arabia after the rights are over, and it is now insisting that contractors engaged on Government projects do not hire local labourers who are not Saudi nationals. This pool of manpower, composed of labourers who have managed to stay on after the completion of their contracts and labourers transferred quite apart from left-over Hajis, has so far proved extremely convenient for contractors, saving them both time and money.)

Above all the major role of the Saudi sponsor or partner is to spot business opportunities for bids and the Government's decision on the contract. At the next stage it may take a contractor four or five months between winning the contract and being able to start work. It is difficult in Saudi Arabia to obtain permits for using radios and explosives, and rather than trying to obtain an explosives permit it normally pays a contractor to sub-contract the blasting work to a local firm which already has a licence. Then there are still small localised bottlenecks affecting supplies of various services, bits of equipment or materials. There can be bad bureaucratic delays if the decision taker in the ministry or State organisation with which the contractor is dealing happens to leave the Kingdom, or become involved in the fastidiously time-consuming protocol which accompanies all arrivals and departures of official delegations in the Arab world. Bureaucratic problems such as these may be accentuated by Ramadan and the Hajj—though Westerners tend to exaggerate the impact that these two months have on slowing down life in Saudi Arabia.

The most serious delay of all may involve the mobilisation of labour, which for Government and Aramco work has to be recruited outside the Kingdom and imported under the block visa system. This system works as follows: after having his bid accepted, the contractor submits his estimate of the amount of labour required to his client, and once the client has approved the figure an application for a block visa is made to the Ministry of the Interior. This Ministry in turn will forward authorisation to the different Saudi embassies involved abroad, permitting them to issue individual visas to however many people the contractor is bringing in from each country—say 100 Pakistanis, 100 Indians and 200 Taiwanese—up to a maximum total of 400 per block visa. Normally this process takes anything from one to three months—though in abnormal cases there may be additional delays.

Finally the contractor has the problem of providing accommodation for his labour force on every job worth more than about \$30m. But once the contractor has his labour on site he can probably be more certain of completing the job on time than he can in Europe or America. Although he may have the same problems that he would anywhere with the delivery of materials, he does not have to contend with bad weather and industrial disputes.

Overall, the delays and the extra expense of importing and housing means that the cost of a labour-intensive project, such as a housing scheme, may be double what it would be in the west. However, the additional cost of an industrial project, where there is scope for pre-fabricating large pieces of plant in the supplying country, may be as little as 20 or 25 per cent.

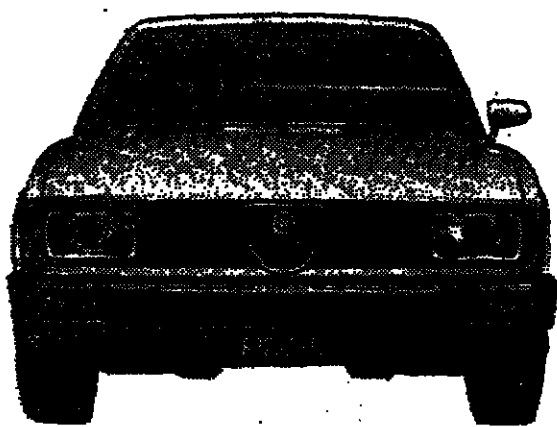
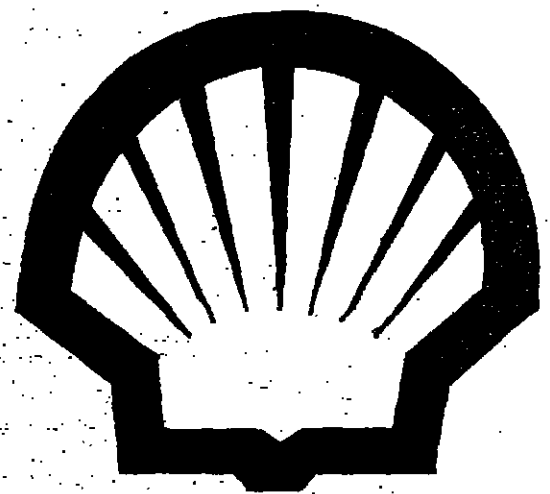
The list of delays, additional costs and special features of the Saudi market looks daunting, but in practice a contractor who understands how to work in the Kingdom can do very well. With a major turnkey contract there will probably be a sufficient lead-in time, while the contractor is doing the design and purchase work, for the recruitment of labour and the building of accommodation to be completed to coincide with the contractor being ready to begin construction. It is mainly with Aramco, which will normally supply the design and materials itself, and may sometimes provide accommodation as well, that the contractor has to try to gear himself up to begin work more or less immediately.

At all times the secret of contracting in Saudi Arabia is to be logistically orientated. A vasty greater proportion of a contractor's time has to be orientated towards matters of control—of transport, supplies and size of workforce—than it does in the West. There have been instances of companies going bankrupt through having had bad internal transport, or having found themselves employing too great a number of expensive European and American workers. In this context a really good and experienced contract administration staff—with an extra flair for exploiting the fixed price lump sum system to the contractor's own benefit—is a colossal advantage.

Nor should outsiders be put off Saudi Arabia by the assumption that the market is already sewn up by firms that have established themselves in the Kingdom. As the emphasis in construction tends to move from infrastructure and housing to industry and a whole range of more specialised and more numerous but smaller projects, new opportunities are continually being thrown up for the introduction of new processes and techniques. The trend in the Saudi contracting business now is towards the establishment of joint Saudi-foreign companies with a specialist orientation.

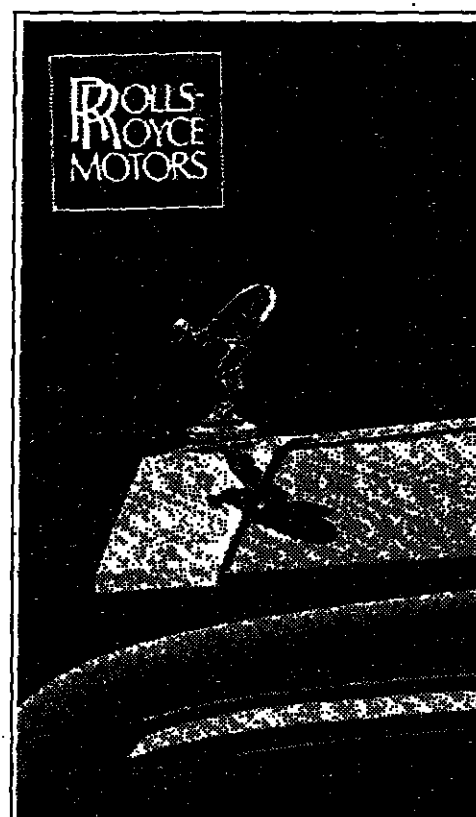
Michael Field

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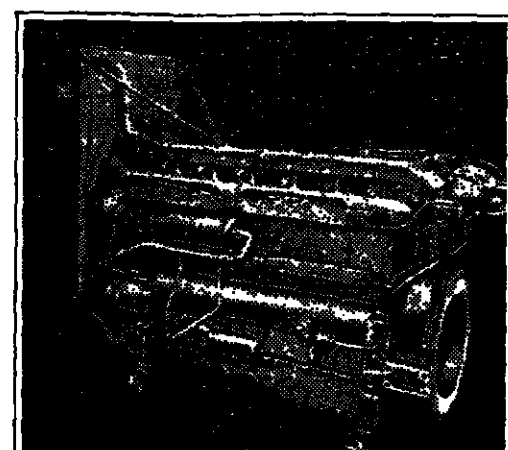


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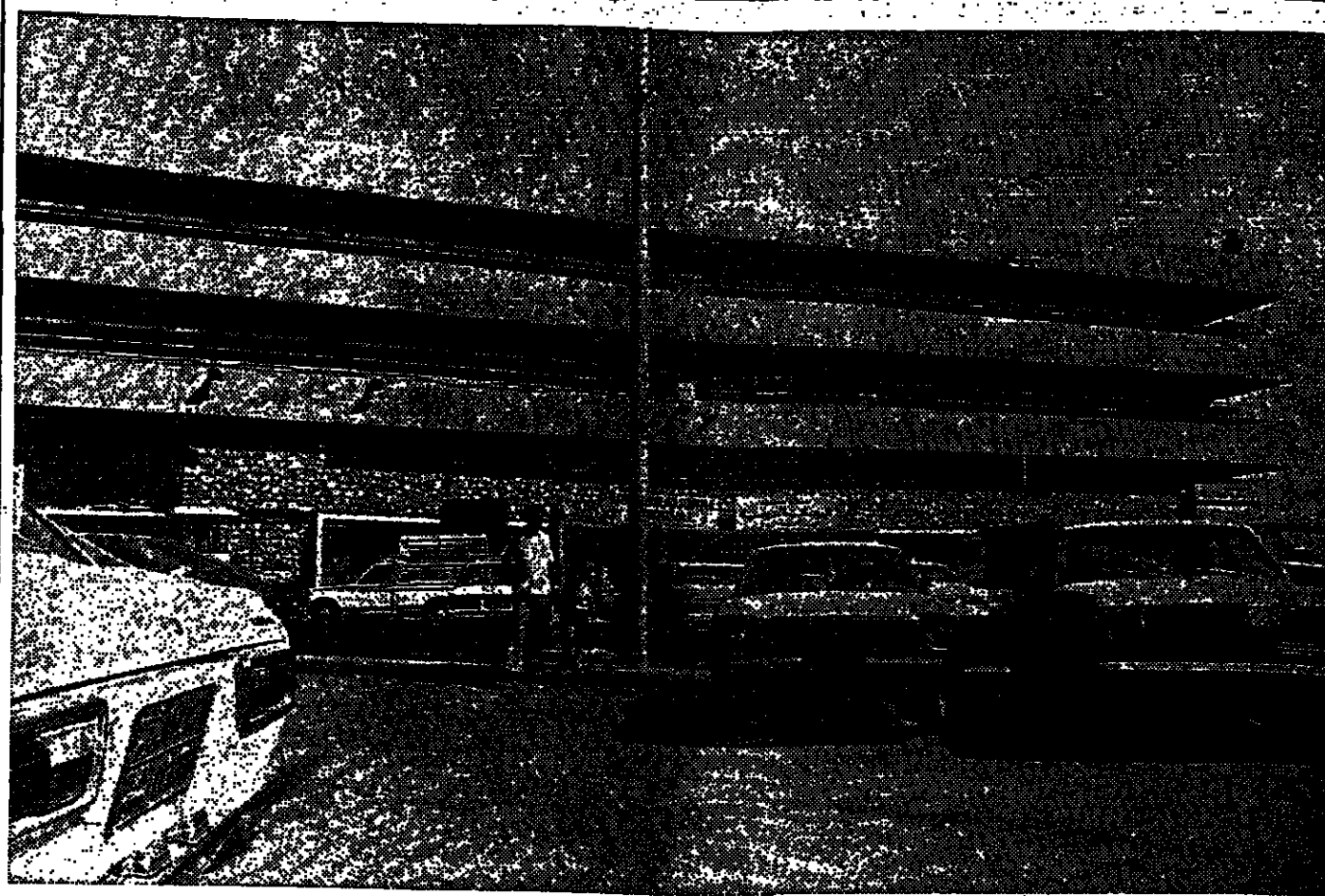
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## SAUDI ARABIA XXXIV



The arrivals hall of the new £20m. airport built by Laing Wimpey Akreza at Abha. A further £22.5m. contract is due for completion early next year.

The national airline, Saudia, was the fastest growing member of IATA in 1976, and is the biggest carrier in the Middle East. The remarkable growth in air traffic in the Kingdom has posed formidable tasks, but these have been successfully tackled in a busy programme of construction, purchasing and training.

## Air services

EARLIER THIS year Sheikh Hisham Nazer, Saudi Arabia's Planning Minister, cited as an achievement of the 1975-80 Development Plan the fact that Saudi, the national airline, had increased its fleet by 10 more aircraft than had been targeted in the plan, and carried 3.1m. passengers in 1976 against the targeted figure of 1.9m.

The cynics might say that the contrast between target and achievement simply indicated the extent to which the State planners underestimated the growth of the Saudi economy, and that a country with an annual revenue of well over SR100bn. should have no difficulty in buying additional aircraft for its airline.

In fact the figures represent a considerable achievement for Saudia. Actually acquiring aircraft may be relatively easy, but quickly expanding staff and operations to handle them and fitting them into often crowded airports is more difficult. Saudia has to cope with all the problems airlines face in developing countries—especially the smallness of the pool from which to draw potential staff and the unfamiliarity of many passengers with airline practice. Because of its size it inevitably needs a larger administration than its equivalent in other countries, and this must function efficiently. Despite occasional teething troubles Saudia has a well-deserved reputation for operational punctuality and efficiency.

Its growth has been phenomenal by any standards. According to the airlines public affairs division its capacity (expressed in available tonne kilometres) rose by 61 per cent in 1976 and by a further 46 per cent last year to stand at 1.24bn. Passengers carried rose by 71 per cent in 1976 and by a further 50 per cent last year when 4.7m. were carried (with a passenger load factor of 57 per cent).

Now Saudia has a fleet of 54 aircraft, including two Boeing 747s (leased), eight Lockheed TriStars (owned), 11 Boeing 707/720 passenger aircraft (all but one owned) and 16 Boeing 737s (owned). It also has four freight aircraft (all but one leased DC8s) and ten small executive aircraft in its Special Flight Services division, which caters for officials and businessmen. It was the fastest growing airline in IATA in 1976, and is the largest carrier in the Middle East.

## Domestic

The majority of Saudia's passengers (some 3.4m. in 1977) are carried on domestic routes, where the airline operates an enormous number of services (including more than 100 flights a week each way between Jeddah and Riyadh, a route on which nearly 1m. passengers were carried last year). To a considerable extent Saudia provides a social service—its fares for economy class passengers were cut by 25 per cent in 1975 on Government instructions, and so air travel came within reach of almost everyone in the Kingdom. It now costs only SR140 to go from Jeddah to Riyadh economy class, and the SR60 fare to Medina is less than it costs to get there by shared taxi. Saudia operates services to towns that have not yet been connected to the metalled road system.

To solve the administrative problems of handling the high volume of reservations on its internal routes, Saudia in 1976 introduced a no-reservations service for economy class passengers: tickets are exchanged for boarding passes the night before or on the day of travel, and passengers who do not get on to the flight they want may only have to wait an hour or so until the next departure. The system works well when demand for seats falls within the capacity available, but at peak times of year departure halls can become unbearably crowded and police have sometimes had to supervise the issuing of boarding passes. The airline now reacts more flexibly, putting on extra flights to meet peak demand, and it tends to meet the pilgrimage traffic and the twice-yearly ferrying to and from Egypt of about 60,000 teachers with chartered aircraft.

For first class passengers there is still the security of a reservation service and Saudia's computerised system now works smoothly. The need to reconfirm bookings before a seat is assured has cut out no-show passengers and raised seat occupancy. For those who know how to go about it, internal flying in Saudi Arabia has never been easier.

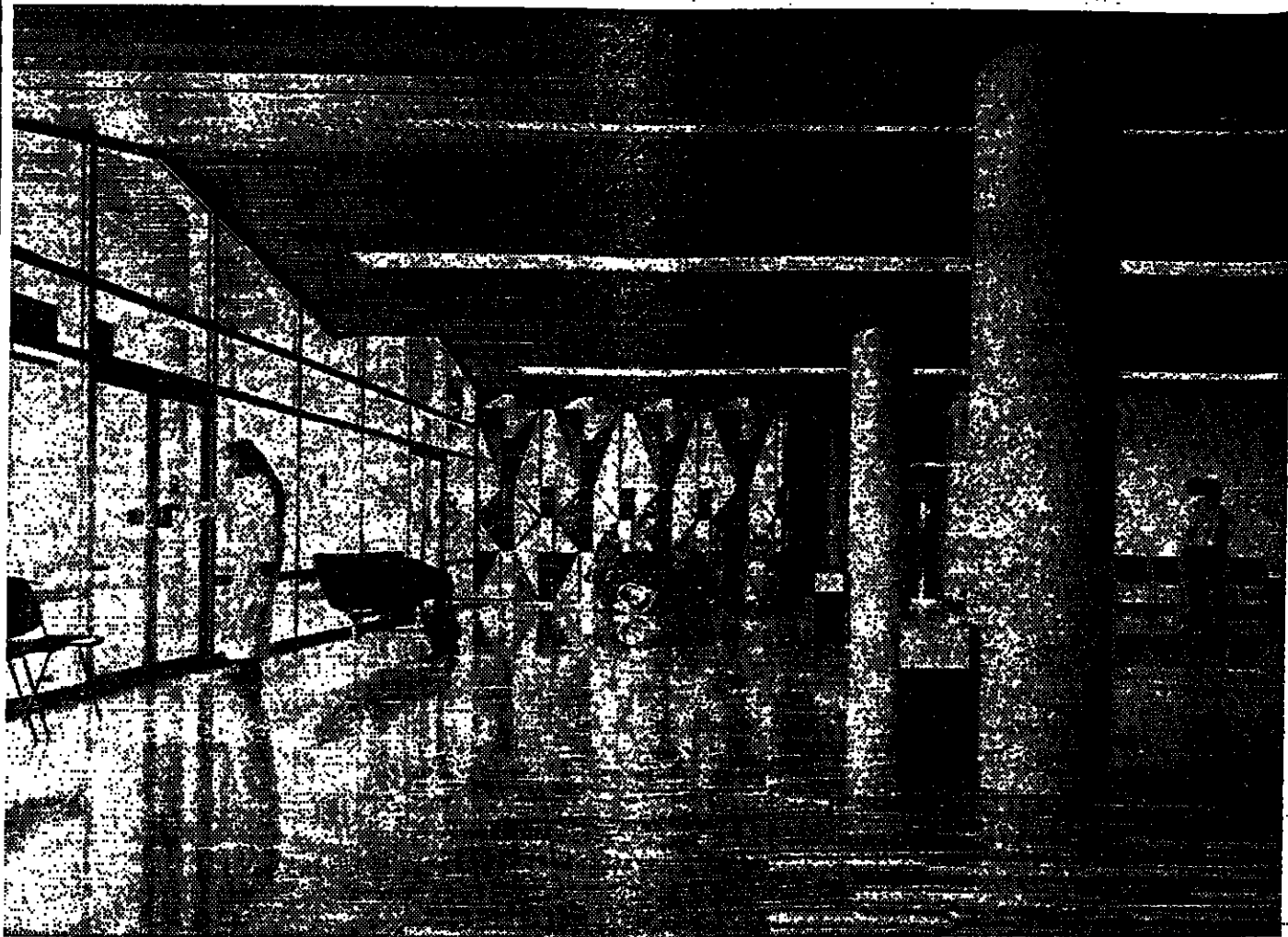
Last year Saudia carried 1.3m. international passengers. It operates 12 flights a week from Jeddah and Riyadh to London, all but one either by TriStar or Boeing 747. Saudia is the only airline to operate either international or domestic scheduled flights to Riyadh (there are five flights a week from London); this exclusivity is offset by the fact that the airline does not operate flights to London and Paris from Dhahran, leaving this route mainly to the European carriers.

The airline also offers 14 all-freight services a week from the Kingdom to European cities using mainly DC8 aircraft. Saudi Arabia does not allow split charter flights, which would be the main competition with IATA freight operations. Inevitably the aircraft carry virtually nothing on flights out of the Kingdom, but achieved a 44 per cent overall load factor in 1977, which in the circumstances is impressive.

## Hampered

Because of the cut in fares, which led to revenue dilution, and because of the start-up costs associated with very fast growth, combined with inflation, Saudia made a loss in 1976 of SR122.3m. — against operating revenue of SR1.17bn. In general the international flights make profits, but the domestic flights, mainly because of the need to operate a social service, collectively run at a loss, and the cargo services are financially hampered by the one-way only loads. The bulk of the company's long-term debt is provided interest-free by the State's Public Investment Fund.

James Buxton



The international airport at Jeddah.

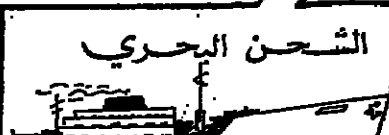
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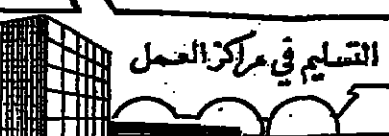
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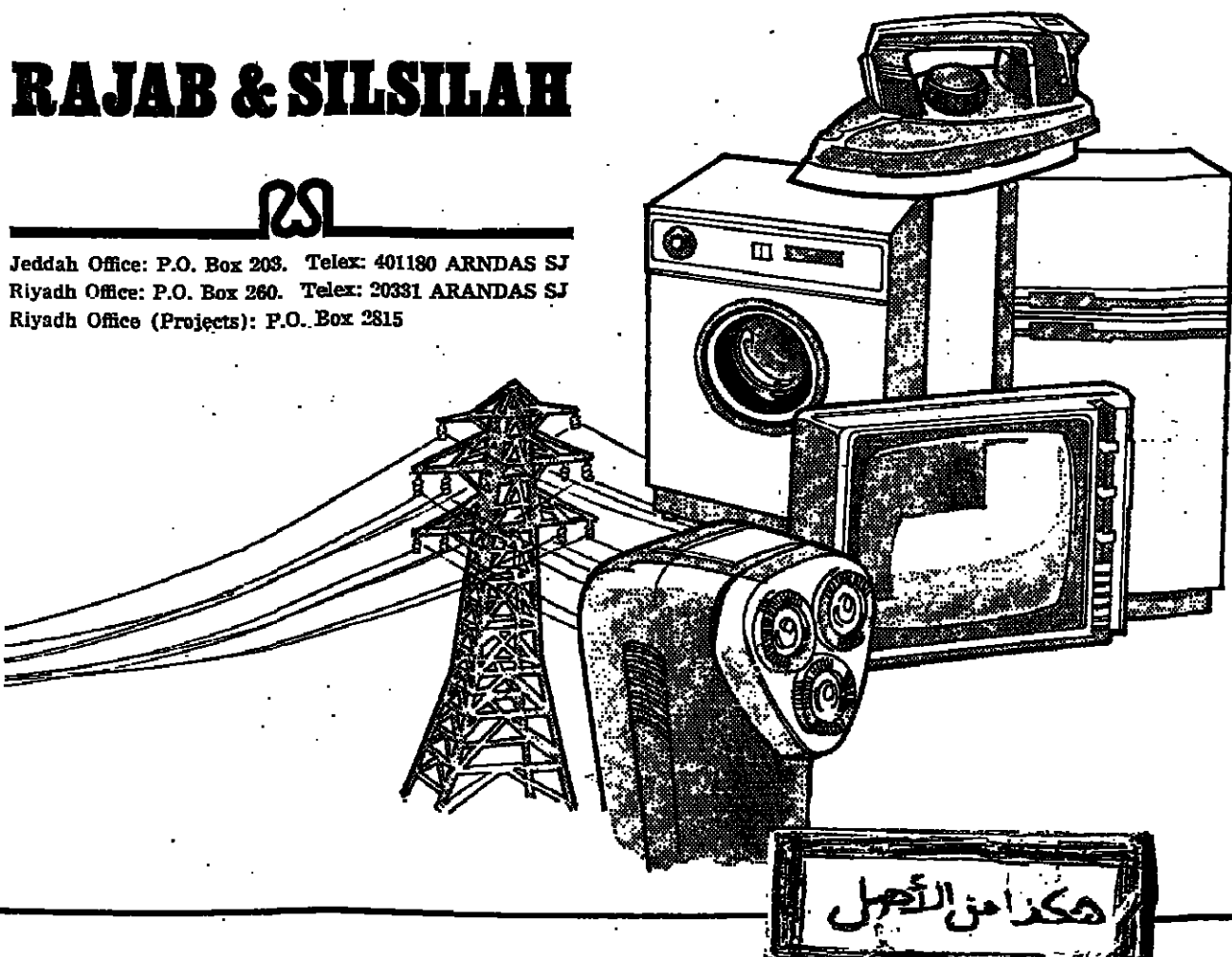
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هكذا من الأجهزة



Saudi Arabia has not joined the international tourist circuit. Most of its visitors are businessmen or pilgrims, and the country has no need of tourist revenue. But as the guide below shows, Saudi Arabia contains large areas of great beauty and outstanding historic interest.

## Sightseeing

GUIDED TOURS and package tours are unknown in Saudi Arabia. The Kingdom has no need for the foreign currency earned from tourism and does not welcome the intrusive, snap-shotting holiday-maker. Yet it is visited in the peak of the year by rather more foreigners than most other countries.

Most of these foreign visitors, some three-quarters of a million of them, are the Moslem pilgrims coming to Mecca for the Hajj. Their interest is in the Holy Cities and their scope for sightseeing beyond that is limited. The other class of visitors, whose numbers are uncounted but who fill the Kingdom's hotels to saturation point, are the businessmen, consultants and contractors who come to do business. Their sightseeing is restricted too largely by the cost of an extra night in one of the over-full hotels, but some find themselves with a Friday to spare, or a few days to wait when it may pay to take the mind off work.

Jeddah, the main business centre, offers the greatest variety of possible outings. A car is essential and a helpful friend, a hire car or a taxi must be found. Best known of Jeddah's leisure resorts is the Creek, Sharm Ohur, 20 miles north of the city, whose tentacles are rapidly reaching out to it. Strip building along both shores has left few and crowded sections of public beach. The best view of the Creek is offered by the delightful chalets and villas of some Saudi merchant families, where they specialise in elegant Friday luncheon parties. The small rented cabins in walled compounds, and the flourishing sailing club on the southern shore, are other agreeable places to visit.

Sporting facilities include sailing (usually in small yachts before a strong wind), water skiing, fishing, swimming and snorkelling (which is less

### Desert

For a desert outing there is Wadi Fatima, inland of Jeddah and source of much of the city's water. Agriculture in the lower wadi, between the Jeddah-Mecca and Medina-Mecca roads, is much depleted due to the falling water table. In the upper wadi, however, north of the Medina-Mecca road, there are luxuriant palm gardens in a lovely oasis setting. They are some 23 km. north of the village of Jumum, along a dirt track which can be taken in an ordinary car. The plantations are criss-crossed by irrigation streams in which small fish swim, and are carpeted with wild flowers, guava, banana and lemon trees. The only sounds are of bird song and running water.

A round trip can be made by turning north along the Mecca-Medina road to Ushayr where one takes the new asphalt road across to the Creek. A ruined castle is perched on a hilltop beside this road. In springtime the slopes below it are covered with tiny desert flowers.

A longer and more exhausting, though more impressive trip can be made in the day to Taif, the Kingdom's summer capital. This mountain resort lies at an altitude of 1,700 m., some 190 km. inland of Jeddah. The heat

and humidity of the coastal plain are left behind as one winds along the spectacularly sinuous road which climbs the mountain's escarpment; at the top, and in Taif itself, the air is always clear and fresh. The town itself is most attractive, its well-kept streets lined with delicate, pink-berried pepper trees, its souq more richly stocked than that of Jeddah and offering better prices, its hotels comfortable and its new Government buildings, set in an ancient fort, of considerable architectural interest. In the valleys around the town there are ancient dams dating to the first century of Islam, more ancient rock carvings which may go back to 3,000 B.C. or earlier, and delightful cultivated areas among the almond trees, the apricots and the prickly pears.

Those with a taste for the desert might drive on eastwards a further 1,000 km. to Riyadh. A taxi costs about the same as a first-class air fare. Most travellers, however, will arrive by air and be content with seeing rather less of the desert than that. The obvious place to go from Riyadh for a day out is, nevertheless, the desert, and if you have friends who know the area, the desert can offer many hidden delights. It is a rich source of fossils, of wild flowers in the right season, of migratory birds in the Wadi Hanifa, especially south of the town, while to the west the Tuwaiq escarpment offers a good place for picnics.

The desert around the capital is not devoid of sites to visit either. Most interesting and most accessible is the ruined town of Diriyah on the banks of the palm-filled Wadi Hanifa. Once capital of the ancient Saudi state, it was destroyed after a long siege in 1818 and left abandoned. The ruins can be reached in 20 minutes by taxi from the city. In the new village which has sprung up at their feet is a community develop-

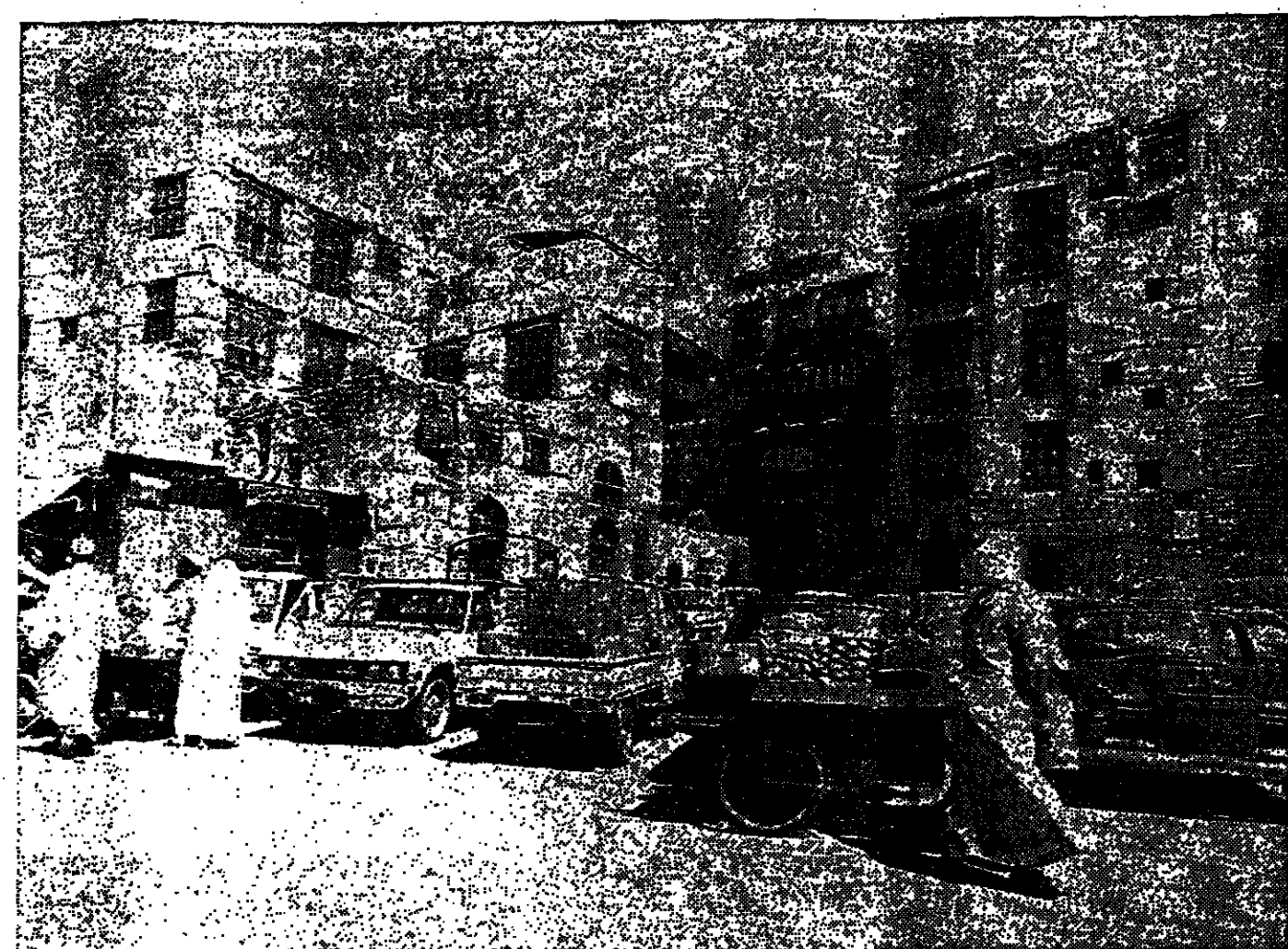
ment offering a permanent exhibition of handicrafts and produce, also worth visiting.

For a longer outing one might recommend a drive to the oasis of al-Kharj, 80 km. south of Riyadh. The oasis itself is very extensive and fruit, cereals and vegetables are grown there for the city. Large herds of European milk cows are also successfully raised. The most interesting places to visit, however, are those where geological faulting has revealed the extensive underground reservoirs beneath the desert. Rarely does one have the chance to see these ancient water supplies of which we hear so much to-day.

In al-Kharj itself the ground has fallen away in two places, leaving great pits some 100 m. across and 130 m. deep, with sweet water at the bottom of them. This water is raised continuously by diesel pump and carried out through a substantial canal to feed the oasis.

Even more spectacular is the pit of Ain Hit, at the base of a cliff on the eastern side of the road and half way back to Riyadh. There one can walk down a very steep, dark slope under the cliff, to find a large pool of crystal clear water at the base. It is said that King Abdul-Aziz stopped here to water his camels before making his famous night attack on the walled city of Riyadh, back in 1903—an attack which altered completely the course of the Kingdom's history. It is also told that the sight of the geological structures here encouraged the American geologists, who had almost given up hope of finding oil in the mid-1930s, to go back to Dhahran and try again.

Quite different geological structures, but ones which also exert a tourist attraction, are the great red sand dunes at Khurais, 150 km. east of Riyadh on the Dhahran road. At cer-



The old Turkish quarter of Jeddah.

tain times of the year large herds of camels can be seen watering at the wells there.

### Choice

For visitors to Dhahran and the Eastern Province the choice of outings is perhaps more straightforward. The beaches of the Gulf offer fine sand and lovely views of an aquamarine sea still frequented by traditional wooden dhows. They lack, however, the great attraction of the Red Sea's coral reef. But the Eastern Province is the one region where, thanks to the tilt of the peninsula, sweet water bubbles to the surface from the underground reservoirs. This is the region of the really vast oases of tall slender date palms, of dense undergrowth giving the impression of a European woodland. Qatif oasis begins almost at the gates of Dammam and extends north along the coast for many kilometres: the broad sandy alleys, running like brideways between avenues of trees, offer a perfect

afternoon away from the heat and dust of the town. On an even more extensive scale is the oasis of al-Hassa, centred around the pleasant old town of Hofuf. Here the water flows from the springs in veritable canals, one can lose oneself in the woodlands or visit the strange sandstone caves of Jabal Qarra, a hillside of weirdly sculpted rock split by long deep galleries where the air is always cool.

I have concentrated on the easy outings from the three major business centres of Saudi Arabia, but I should also mention some of the Kingdom's more remote but beautiful areas. Justly famous is the lovely Assir province of the south west and the picturesque valley of Najran beyond Abha, capital of the Assir, and Najran, can both be reached by air, and there is a choice of hotels at Abha. The Assir is extensively cultivated in little mountain terraces: its ancient villages are the most photogenic in Arabia, with high mud houses hung with rows of tiles to protect them from the monsoon rains. The

people, dressed in cartwheel straw hats and bright-coloured clothes, are friendly and welcoming; visitors are often invited in to the high mud houses.

Also accessible by air, and at the other extreme of the Kingdom, is the exquisite little oasis of Al Jauf. Here in the far north east, near the empty red wastes of the Nefud desert, the ancient towns of Dumat al-Jandal (mentioned in Genesis) and Sakaka reveal a troubled past in the huge, crumbling castles. Marid Castle, balanced amazingly on its rocky pinnacle at Dumat al-Jandal, is believed to date back to the second century B.C. Below the castle are the ruins of an entire stone-built town with one of the oldest mosques in Arabia, that of the Caliph Umar, still intact with its lovely stone-built minaret. On the lower slopes of the great white bowl which has given the oasis its name (Jauf means "depression") are palm groves and grassy fields in which herds of cows graze in strange contrast to the soaring sand dunes on the horizon.

Most famous, yet least easy of access, of Saudi Arabia's sites is that of Medain Salih, the twin city to Petra 2,000 years ago. Here in a golden sandy valley of the Hejaz the Nabataeans carved over 100 of their impressive rock cut tombs, in a landscape of beautifully sculpted cliffs. The engine sheds of the ill-fated Hejaz railway, with a 1903 engine still in situ, standing beside a ruined 17th century pilgrim fortress, are bonus attractions of the place.

The nearest airport to Medain Salih is that of al-Medina some 350 km. to the south. A four-wheel drive vehicle is needed at present for the last 15 km. of the trip, over sandy track, and permission to visit must be obtained from the Ministry of the Interior. For all that, it is a trip through beautiful mountain scenery into a landscape steeped with the history of the old incense caravan route, a trip so well worth the making.

Edward Alexander

# ALUMINIUM and the Saudi future

## International Co-operation

In 1975 a twelve year contract for technical and engineering co-operation was signed between ALUPCO and the Swiss Aluminium Co. Ltd. (Alusuisse), one of the largest international companies specialising in the aluminium industry. Within the framework of this contract Alusuisse has prepared all the engineering designs and feasibility studies for the ALUPCO project.

On February 2nd 1976, ALUPCO signed an agreement with the Saudi Industrial Development Fund for a long-term loan of SR 47 million. In 1976/77 ALUPCO signed over 100 contracts with various local and international companies for the supply and erection of the Dammam facilities and equipment, and in May of 1976 work began.

The site became operational in August 1977.

## Training for the future

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Saudi Arabia's aluminium industry is vital to the development of the country's future self-sufficiency. ALUPCO is proud to be the first industrial aluminium complex of its kind in the country.

In the last few years, Saudi Arabia has moved forward at a pace rarely matched by any nation in the world. Today, under the energetic leadership of the Government, the country's vast resources are being directed towards improving the welfare of every Saudi citizen, and achieving a rise in his standard of living.

One of the most important areas of activity has been in the architectural and construction industry.

Many projects are under way. These include building in the public service sector: airports, hospitals, schools, offices and housing projects are planned. The flourishing commercial activities of the Kingdom have given rise to an increase in investment-orientated construction work. And, to accommodate the many non-Saudi nationals engaged in the completion of the Second Five Year Plan, a vast number of housing units are being built.

## The demand for aluminium

The fulfillment of these projects has created a huge demand for a local source of supply of semi-fabricated and finished aluminium products for use throughout the Kingdom.

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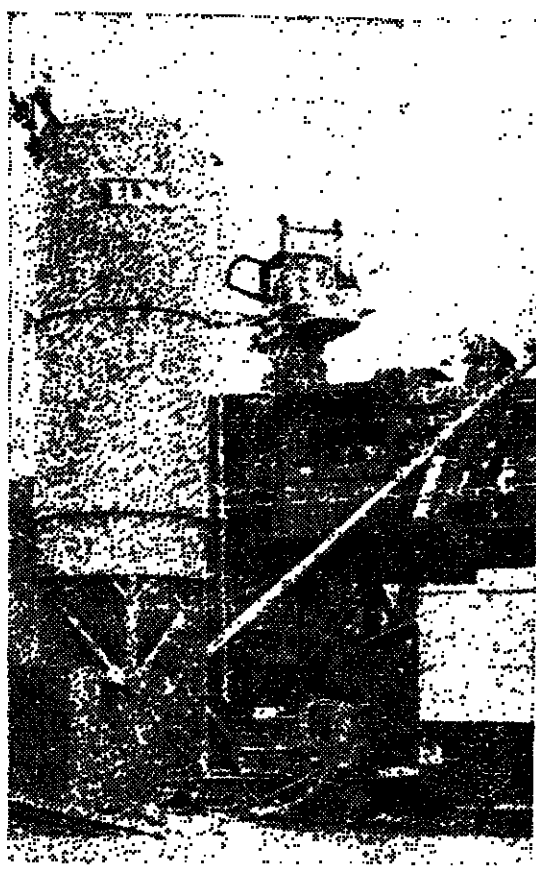
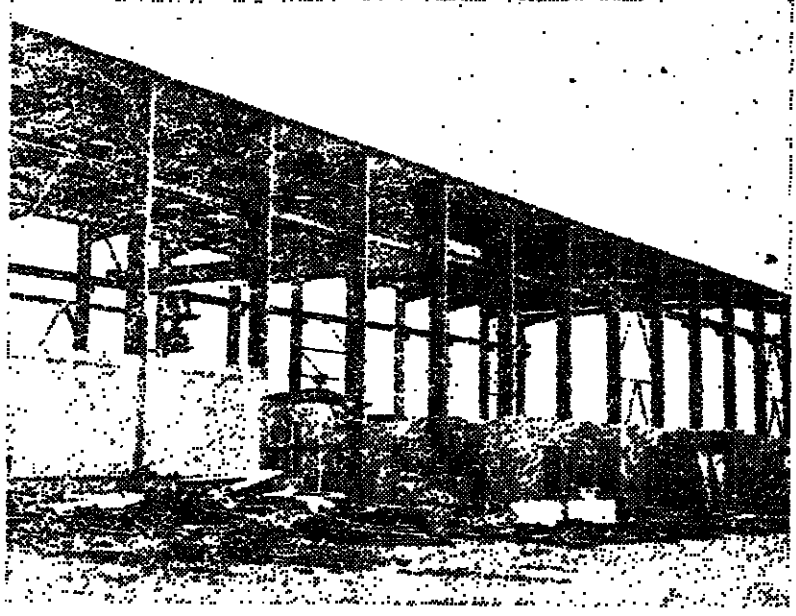
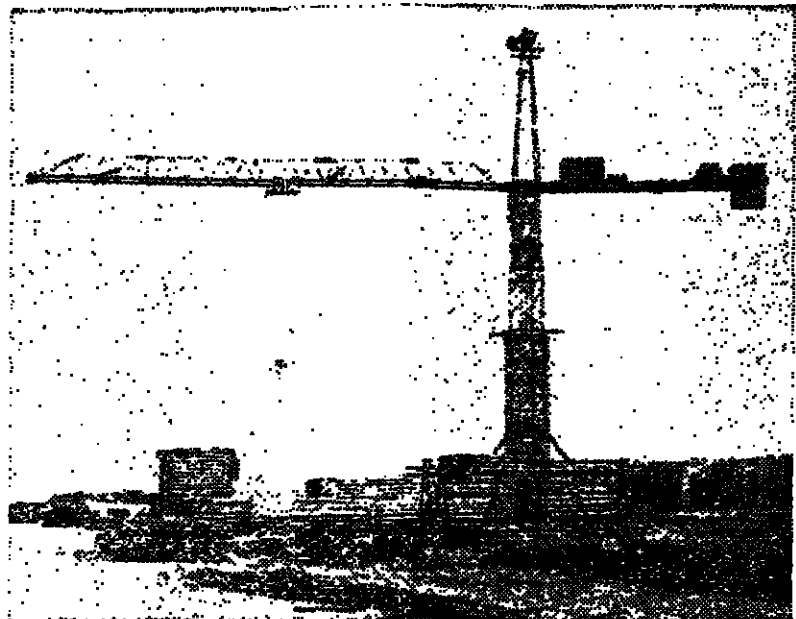
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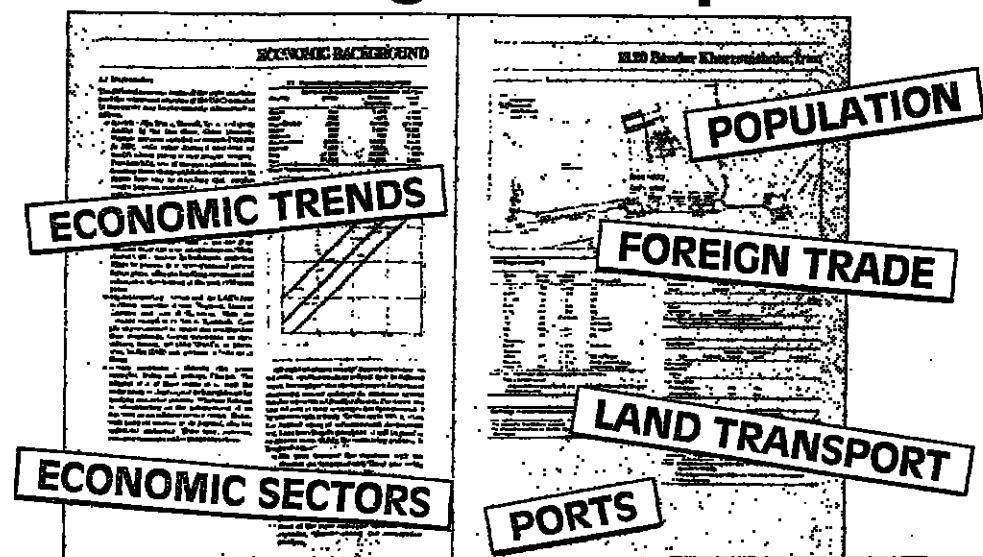
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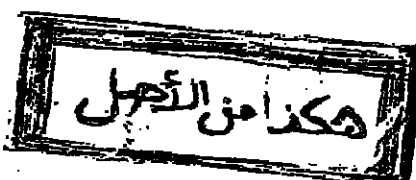
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## SAUDI ARABIA XXXVI

The emergence of Saudi Arabia as a unitary state owes almost everything to the daring initiative and inspiring leadership of one man—King Abdel-Aziz ibn Saud. In this article the late David Holden, the chief foreign correspondent of the Sunday Times, who was murdered in Cairo last December, summarised his heroic and lasting achievement.

# The father of the Kingdom

IN THE MIDDLE of the concrete sprawl of modern Riyadh, the Saudi Arabian capital—surrounded by camera shops, perfume bazzars, and honking streams of traffic—stands a small, round-towered fort of mud to which every visitor should make his pilgrimage. Its name in Arabic is the Musmak; and just three-quarters of a century ago it was the site of one of the most famous battles in Arabia's history when a tall young warrior of the House of Saud led 15 of his companions in a successful assault upon its gates, put the defenders to the sword in the name of God, and proclaimed the revival of his own clan as the lords of central Arabia.

To most visitors in Saudi Arabia to-day that dramatic little affair seems about as remote as the battle of Agincourt is from contemporary Europe. Yet it marked the birth of Saudi Arabia as a modern nation, and the young man who led the raiding party is still honoured above all others, not just as the present Kingdom's founding father, but as its architect and guide through the next 50 years of change.

He was Abdel-Aziz Ibn Abdel-Rahman Ibn Feisal al-Saud, commonly known to the world beyond Arabia as Ibn Saud, and the scale of his achievement between the capture of Riyadh in 1902 and his death in 1953 has established for him an unshakable reputation as the most remarkable son of Arabia since the Prophet Mohammed.

Abdel-Aziz, as he is always known among his own people, was born in Riyadh in 1880 (1297 AH by the Moslem calendar) at a time when the Saud family was in grave disorder and its rule over the surrounding province of Nejd was collapsing before the challenge of rival clans. By the time Abdel-Aziz was ten he had witnessed more murder, fratricide and battle than most people could fear to see in a lifetime, and in 1891 he was forced to join his father, Abdel-Rahman, in secret flight from Riyadh, swinging out on camel-back into the desert by night suspended alongside his sister, Noura, in a saddle-bag. For most of the next decade he was in exile with his family in Kuwait and, to such of the world as then knew or cared, it seemed that the reign of the House of Saud in Arabia was ended forever.

In fact, there were few who felt any concern for its fate. The recesses of desert Arabia in those days were so isolated and austere that only three Europeans had reached Riyadh throughout the whole of the 19th century.

## Endemic

Tribal war seemed endemic; security was unknown and beyond Arabia's own shores the downfall of the Saudi clan seemed no more than the immemorial small change of desert custom.

But Abdel-Aziz was a man of wider vision, conscious that his family had once enjoyed a history of more than merely local rule. One hundred and fifty years before, one of his ancestors had made an alliance with a great religious teacher of his day, Sheikh Mohammed Ibn Abdel Wahhab, dedicating Saudi strength to the promotion and purification of Islam throughout Arabia. The Wahhabis, as they were known (although in Arabia itself the term is rarely used) had swept all before them in Arabia for several decades under Saudi leadership, capturing Mecca, harrising Oman and even plundering foreign shipping in the Arabian Gulf.

Abdel-Aziz was raised in this family tradition that united the rigours of desert warfare with the virtues of the faith. His father was an exceptionally pious man and Abdel-Aziz's only education was that of the Koran and the traditional desert sports—camel and horse riding, hunting and sword play. Sitting in Kuwait in unworldly idleness he resolved to resurrect the family kingdom through the old combination of tribal power and religious zeal; but the genius he displayed in the execution of his plan turned it into something more—a lifelong campaign for the unification and independence of Arabia.

Most of the early years after the capture of Riyadh were spent in extending and consoli-



King Abdel-Aziz ibn Saud photographed during a visit to American oil developments in Saudi Arabia in 1947.

dating his rule in the time-honoured fashion of a great Arab chieftain through a mixture of worship, war and love. The British traveller and political agent, Gertrude Bell, who was one of the first Europeans to meet Abdel-Aziz, in his prime, described him as a "politician, ruler and raider" who illustrated "a historic type." His hands were fine, she noted, with slender fingers, yet he had "great height and breadth of shoulder" together with "powers of physical endurance rare even in hard-bitten Arabia.... he is of proved daring, and he combines with his qualities as a soldier that grasp of statecraft which is yet more highly prized by the tribesmen."

## Pinned

Prayer, women and perfumes, it was said, were his greatest pleasures in life, in that order. To enforce the first, he formed the armed companies of Ikhwān, or brethren, whose strict Wahhabism brooked no laxity before God and whose marauding cavalry became the terror of all his enemies.

But the Ikhwān's conquests were cemented by his marriages—and his magnanimity—as he found wife after wife among the families of his vanquished rivals, as well as those of his allies, so that his seed was spread the length and breadth of his growing kingdom and old enemies as well as friends were encircled with the bond of blood.

The 44 sons that resulted formed the nucleus of the current Saudi State; they and their sons to-day still administer Abdel-Aziz's legacy. But the peculiar circumstances of the 20th century gave that legacy an extra dimension that in his first years even Abdel-Aziz could not foresee. When he forced the doors of the Musmak at sword-point, virtually the whole of Arabia was innocent of any technology that had not been common already in the prophet's day. Yet within 30 years the motor car, the wireless and the aeroplane were helping Abdel-Aziz to construct a bigger and more stable kingdom than any Arabian ruler for a thousand years. They were also, as we now know so well, opening the way to the biggest change of all—the discovery and exploitation of Arabia's oil.

For Abdel-Aziz, the oil discoveries came so late in the day that they seemed almost as much of a burden as a reward. Before the First World War the total annual income of his state rarely exceeded \$150,000 and even in the 1930s, after he had become ruler of Mecca and its valuable pilgrim trade, he was forever on the edge of bankruptcy.

When the first American oil-men came sniffing at his deserts the King's hopes were on what now seems a pitifully modest scale. "O," he sighed one day to his old friend, St. John Philby, the British explorer, "if anyone would offer me £1m. I would give him all the concessions he wanted." In fact, he got just £50,000 from Standard Oil of California for the exploration rights in his Kingdom, and it was not until

after the second world war that his income began to rise to what we now think of as the customary level of oil wealth. By 1953, when he died, crippled with arthritis and half-blind, Saudi Arabia's national income was over \$300m, a year—2,000 times what it had been when Abdel-Aziz captured Riyadh—and the face of the country was starting to show, for the first time, those physical changes that in the intervening years have transformed it almost beyond recognition. But by then, after a lifetime of endeavour and achievement that deserves to be called heroic, Abdel-Aziz had become too old and tired to know quite

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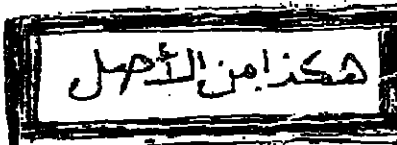
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## SAUDI ARABIA XXXVII



The traditional life-style of the bedouin, or desert nomads, is undergoing gentle change. Education, medical care and modern transport are among the lures—particularly for the younger generation—of the settled community. But there remains a hard core to preserve links with the old ways.

# The people of the desert

FOR THOSE brought up on a vision of the desert as a place of lawlessness and chaos, a visit to a bedouin tent is still a romantic experience. The utter silence and sameness of desert life is broken only by the tiny sign of human existence, the black line which resolves, as one approaches, into a long, low tent. I recently sat at a Kulla tent in northern Arabia and watched this old grandmother, her face decorated with blue stripes, spinning wool from the flock on a small wood spindle. We drank sweet tea from glass cups and looked around inside the tent. "There is nothing really to see," they said, "just a typical simple bedu home." Their few belongings were stored in brightly coloured enamel tin trunks, their bedding folded and neatly piled. This group was still nomadic; their belongings were kept to a minimum and they could move at no notice. They had arrived there a few days ago from Jordan where they had spent the summer. They came down in a couple of trucks, the flocks in one, the family and tent in another. As we sat and talked, some relatives called in from a distant tent, driving over by pickup and immediately finding our hosts' tent in its fold in the hills. Yes, they had travelled by camel when they were boys, but those days were gone, pickups were far better.

At another tent in central Saudi Arabia, I saw, perhaps, a more typical bedouin life-style. The tent was pitched close by a little mud-built village and now was never moved. The owner's flocks grazed with those of the permanent villagers and it seemed that he was rapidly becoming one of them. By the coffee hearth the brass pots were ranged, and a camel saddle provided an arm-rest. "No, they had not kept camels for years now," it was just a piece of furniture. The truck outside was their means of transport. Their women no longer wore the long, narrow ground

loom on which tent sections were made. They did have a sewing machine, however, and made their own dresses. When I left I asked how I might find them again, perhaps send them a card. One of the young women seized a pencil and paper and wrote the address of the village, and of her friend's house, in a clear, well-formed hand. The skill was unexpected, but perhaps not, to-day, so very rare after all.

We called back a few days later to thank her and offer some sweets. She was gone, they said. She had had an accident and been taken to the clinic beyond the mountain. We followed, a bumpy 20 km., and found a very simple clinic in an old mining camp. Her wound had been patched and she was well. She was also fortunate. For the nomadic bedouin, an injury can spell disaster, as the nearest clinic may not be a handy 20 km. but nearer 200 km. away, for this is a vast country and in places virtually uninhabited.

## Comforts

The desert bedouin have a better chance to-day than they ever had of obtaining some schooling, of reaching medical care. Every camp that I have seen now has a pickup truck. Many have a water tanker as well and so they are free of the great fear in the desert, lack of water. It is possible now to take a sick person to a clinic, though distances may make them too late and mortality in the desert, especially among small children, is still very high. There are a few comforts in the tents, too, a paraffin stove and lamp, tinny foods to ease out their sparse meals, binoculars and a compass to help on the myriad tracks carved by the trucks in the past four or five years. Even, occasionally, a cold box. It is schooling, rather than the desire for extra comforts,

which is most likely to persuade a family to pitch its tent near a village or town and keep it there. One section of the family may still go away for part of the year with the flocks, but some stay, move first to a hut built of tins, then to a mud or breeze-block house. Very often the tent will still stand beside the hut, or in the courtyard of the house. The options are still open.

A fascinating study of this period of transition in the life of Saudi Arabia's bedouin was published last year by a Japanese researcher who spent two years visiting the same village near Jeddah. The book, *Bedouin Village*, is by Mrs. Motoko Katakura. She found that the villagers kept their links with their nomadic relatives; that some of them moved to the desert from time to time; that some gave up village life completely and went back to the desert, while some had moved on to the city and abandoned completely their previous existence.

Education was the magnet which had drawn most of them to the village, and all their boys and young men could read, while many of their girls were in school, too. It was her offer to teach the girls and women of the village to read which gained the author acceptance there.

While many bedouin families are taking the gradual route to settlement, living in a tent beside town or village, slowly moving in, many others seem just as willing to make a clean break, to move directly into the competitive, twentieth-century life of the big cities. They find a job through a member of their own tribe already there (employment still goes largely by tribal connection), or they take up truck or taxi driving. For the freedom-loving bedouin a taxi is the nearest

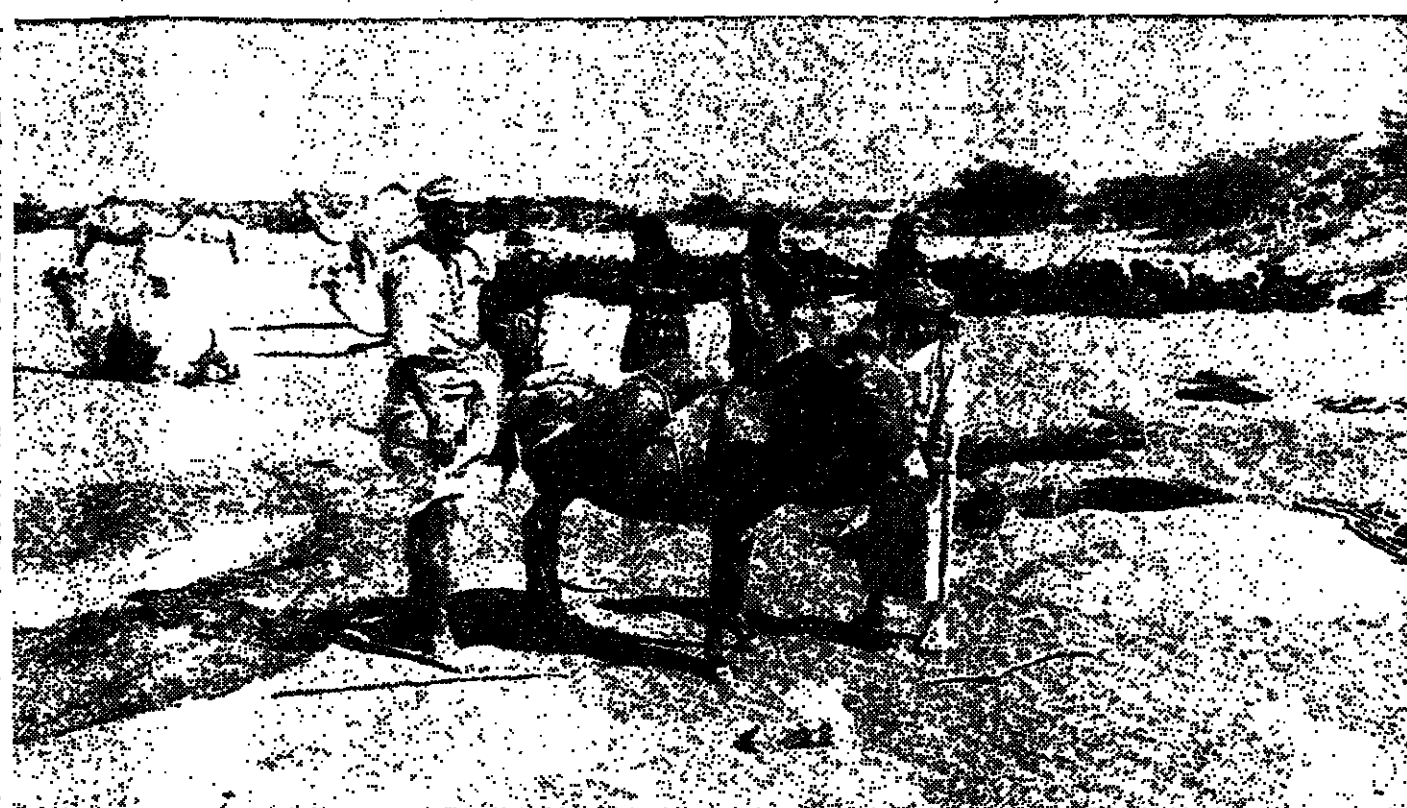
thing the city offers to the independence of his camel herding days.

Once the young man is established he brings his wife and children, or his sisters if he has no wife, to look after him. In this method of settlement the old people are almost always left alone in the desert. The transition to the city is too radical for them to make. They cling to their old way of life and are left to a lonely old age.

## Exodus

That the exodus from the desert is a real and powerful factor of life in Saudi Arabia is certain. Just how fast and how far it will go is not, as yet, so clearly determined. A census of a nomadic population is notoriously difficult to make and perhaps nearly impossible to make accurately (the officials involved would not, for one thing, be allowed into the tents actually to count women and children; some bedouin would count their girl children, some would not, and so on). Official figures give a bedouin population of 600,000 in Saudi Arabia (but how do they count those, such as my first host, who spend part of the year in Jordan, Syria or Iraq?), and sample surveys have shown a net decrease of 2 per cent per annum.

Theoretically this should mean that the bedouin will disappear from the deserts of Arabia in one generation, and many observers and Government officials expect that this will be the case. Some researchers who have lived with the bedouin in recent years, however, report that the bedouin are determined to maintain their life style. Tradition ally it was the bedouin who failed who chose to settle, and most of those in her village seemed not to have been too successful as nomads. It may be



Characters in a scene which has changed little over the centuries.

that many of those now left in the deserts are a competent, content hard core who are happy to continue in their spartan but independent existence.

The Saudi State has, from its early years, shown a marked interest in settling the bedouin. Government schemes were first launched by King Abdel-Aziz who founded numerous *hijra*, para-military settlements for fighters who bore the brunt of his wars to unify the peninsula. From those early days until recent times the concept of bedouin settlement was tied inextricably to that of agriculture. Most recent venture of this kind was the huge settlement project of Haradh, launched by the

Government in the early 1970s, guard the Saud family and maintain peace in the land, is now armed and trained to second the State armed forces in case of threat on the frontiers. It is manned entirely by units from the tribes and is headed by Prince Abdullah, second deputy prime minister and son of King Abdel-Aziz and a Shammari bedouin girl. Its bedouin troops are totally loyal to the Saud dynasty and completely content with their career, handling with aplomb the most modern of vehicles and missiles.

The income from their service in the National Guard, both in regular units and the reserves, is a major factor in the bedouin economy, keeping tens of

thousands of families in comfort. Animal husbandry can barely produce a living wage to-day and the bedouin are obliged to supplement it as best they may. Official subsidies and hand-outs, gifts from sheikhs and princes and their National Guard salaries, have produced a higher standard of living than perhaps has ever before been enjoyed in the desert. However, the gap between their income and that of the townsmen is increasing yet more rapidly, and will ensure for the time being a continuing drift from the desert to the town of the young and ambitious eager to make their fortune.

Gillian James

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Like so many other organisations in Saudi Arabia, it is a young group both in terms of its own age as well as in terms of the average age of its key personnel.

Through very careful planning, Saudi Center has created a solid manpower base by steadily recruiting highly qualified young men in its efforts to establish an important nucleus of people upon whose combined skills it has relied for its achievements thus far and bases its hopes for the future. In essence, the Group's outlook for growth is supported by the knowledge that it is managed by a team that claims an inherent balance of technocrats, entrepreneurs and experienced administrators.

The following is a brief outline of the background of each company within the Saudi Center Group:

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Land Sea Transport Company (LSTCO) was established in the early part of 1976—at the height of congestion at the Port of Jeddah—to assist the Port Authority in a swift and drastic programme to clear the Port.

The Company is an accomplished port development, port management and stevedoring operator employing some 1,500 people with a turnover to date of S.R.260 million.

LSTCO has made phenomenal strides to keep up with the targets of the Port Authority. From the date of signing the contract with the Port it managed to

develop an entire Port Area consisting of a causeway, pierhead and marshalling yard, and charter and re-equip six LST's all within a period of three months. Finally, it met its target of discharging 1 million tons within its first year of operations and has thus far handled over 1.5 million metric tons (at times reaching a daily output of 7,200 metric tons).

All this could not have been achieved had it not been for the brilliant policies and full co-operation of the Port Authority Management. Furthermore, the Company is a success story in terms of smooth co-ordination between the different participants in the venture with the Saudi Group taking the lead in the overall management and administration, Kloster Rederi of Norway having charge of all maritime operations and K.N.E. of Korea providing the stevedoring. The records established by LSTCO can be attributed mostly to the close relationship and understanding that has existed between the participants in this multinational group.

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#### SAUDI CENTER FOR TRADING AND CONTRACTING

The Company has expanded rapidly in the last two years through self development and has attained a fine reputation in civil engineering works, residential building and industrial construction. Currently it is handling S.R.100 million worth of contracts consisting of residential estate developments, a civil engineering contract for the Saline Water Conversion Corporation and a Palace in Riyadh.

Having established a fine operational team of experienced engineers, some of whom have a 20 year involvement in construction within the Kingdom, it now plans to further its field of activities by means of joint ventures with technologically advanced companies from overseas.

Address: P.O. Box 3396, Jeddah.  
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#### ALTHARA

Althara is a joint venture between Saudi Trading and Contracting Center and Soil Testing Services Inc. of U.S.A. It offers a comprehensive service in geotechnical engineering, including field exploration and testing, site reconnaissance, laboratory testing, engineering design, geotechnical instrumentation, quality control and inspection. It also provides testing of construction materials during construction

(including concrete, steel, bituminous mixtures etc.).

Althara is currently involved in providing geotechnical services for the second phase of the Jeddah International Airport project and a high rise building for the National Commercial Bank in Jeddah. Soil Testing Services Inc. was the soil consultant for part of the construction project for the King Faisal Hospital in Riyadh.

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#### SGS—SAUDI ARABIA LIMITED

SGS—Saudi Arabia Limited is a joint venture between Saudi Investment and Development Center and Société Générale de Surveillance, the world's largest control and inspection organisation.

Its principal activity is to offer a wide range of quantity and quality checks and related services, and oversee all or any part of commercial transactions and operations connected with the buying, selling, trading and moving of raw materials, commodities, industrial equipment and consumer goods.

SGS—Saudi Arabia Ltd. is also able to offer logistical support services designed to aid the movement of goods safely and efficiently from one point to another avoiding complications resulting from miscalculations, production snags or post delivery problems.

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Saudi International Center is engaged in new project development, specialised purchasing activities, and consultancy.

Project development work includes the conducting of market surveys and feasibility studies, searching for suitable joint venture partners, negotiating working arrangements between local and foreign partners, and mobilising local support and international logistical movements required to initiate the projects.

Procurement is conducted through offices in New York and Paris. Services offered encompass handling in the country of origin, export formalities, selection of carrier, clearance through Saudi customs, and local delivery to customer's site.

Finally, SIC offers a wide range of consultancy services designed to assist foreign firms to do business in Saudi Arabia. It suggests agency, branch and joint venture relationships suitable to the

needs of the foreign company, arranges office, housing and catering facilities and advises concerning local registration requirements.

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#### AMOS

Arabian Maintenance and Operating Services Company Limited (AMOS) is a Saudi Arabian limited liability company under formation to be owned 60% by Saudi Investment and Development Center and 40% by a high technology Western corporation. AMOS' functions include (1) management services for the operation and maintenance of desalination and other water treatment plants, power plants and other continuous process plants, (2) operation and maintenance of water wells, both surface and subsurface, and (3) consultancy activities relative to ground water studies and projects.

AMOS plans to develop a management training center in Jeddah for the operation and maintenance of desalination, power and other continuous process operations.

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#### AL KAWTHER

Al Kawther is a Saudi Arabian limited liability company which has just been formed. It will be based in Saudi Arabia, and will operate in most of the Arab countries of the Middle East.

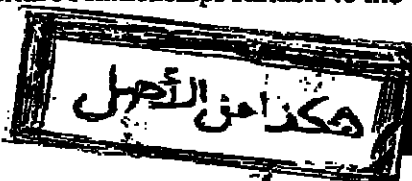
Al Kawther's activities include the design, assembly and installation of water treatment systems, including the desalination of sea water as well as the processing of brackish well waters. It is contemplated that Al Kawther will ultimately establish its own research and development organisation specialising in water treatment technology adapted to Middle East conditions.

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# Chips are down in Europe

EUROPEAN GOVERNMENTS are now forging their policies on what will probably be the last phase of an extraordinary evolution in electronic components. It has already produced computers the size of a postage stamp and will shortly enable transistors to be packed more densely than elements of the mainframe.

The revolution is based on the ability of component makers to fit an ever increasing number of interconnected transistors on a single wafer of silicon. In 1963, when only a single transistor was implanted on each silicon "chip", the density of components packed into each wafer has doubled every year. As a result, whole roomfuls of electronics have been reduced to something which looks like a spackle with wires attached to it.

In the next few years the reductions in size will be even more impressive. Mr. Les Hogan, co-president of Fairchild, the U.S. semiconductor company, expects the limit to be reached around 1985 with about 6m. transistors on a single chip of silicon a few centimetres square.

Such a chip would contain as many elements as the world's present day computer, though it is unlikely that a single computer will contain a single chip. It is clear that integrated circuits in the decade will themselves become highly complicated systems.

Already, computer memory chips are being made more than 100,000 times smaller than present chips. And in the next three years the price per bit of memory has fallen tenfold. The price of a computer switch is now 10,000 times cheaper than what it was five years ago.

The prospect is worrying for equipment companies and governments in Europe, because nobody is yet clear about the full consequences of such a high degree of integration. The only certainty is that a very high proportion of the microscopic circuits will be made in the U.S. or Japan. At present Europe imports about 75 to 80 per cent of its integrated circuits. By contrast, Japan imports only 30 per cent.

Such chips, costing only tens of dollars, will make obsolete much of the assembly work which has been a major part of equipment manufacturers' business. It may be that the equipment makers will be able to use the new super-components to design systems of hitherto undreamed complexity.

## Lower grade

On the other hand, the component makers may themselves become systems designers because in some applications the greatest brain power will be needed for the arrangement of microscopic transistors into patterns on their chips. Where this happens, the equipment makers may be reduced to lower grade activities like soldering, making tin boxes and the fitting of plugs and sockets.

Between these extremes, a variety of different patterns will emerge which cannot easily be foreseen. It is certain however that as packing densities increase at least tenfold in the next five years, the computer, telecommunications and other parts of the electronics industry will be radically altered.

One obvious consequence is that designers in companies like the General Electric Company (GEC) and Siemens of Germany will have to become intimately acquainted with the techniques

for making silicon chips. They will need to be able to design special circuits for their own particular purposes and to know how standard mass-produced circuits can be modified.

For these reasons the governments of all the major countries of Europe are agreed that they must support their micro-electronics industries at least to prevent them from trailing further behind the American and Japanese advance. The support has been running at about £2m. a year. An increased level of support of probably £2m. a year now being planned in the U.K. is still likely to attract the epithet: "too little and too late."

On the other hand, a more lavish handout to the industry could prove a complete waste of money, since there is no chance that any of the British-owned companies making semi-conductors could compete with the Americans across a wide range of standard products. U.K. sales of semiconductors are less than £20m. a year, about 1 per cent of world output.

The Government therefore faces a difficult dilemma. On the one hand it must ensure that the U.K. maintains an up to date capability for making at least special purpose circuits. For a complete computer can be etched on to a few wafers, it may be essential that they can be made in Britain.

On the other hand the Government faces a great deal of scepticism about whether British manufacturers can be competitive even for a limited range of special circuits against U.S. companies with ten times the production capacity. This scepticism is grounded on the fact that the economics of the integrated circuit industry are highly sensitive to the volume of production. One manufacturer estimates that

every time the volume of production is doubled, the price is reduced by 30 per cent.

Long production runs allow fine tuning of the process, which is vitally important where up to 80 per cent of the circuits produced may have to be thrown away after testing. Many successful manufacturers argue, therefore, that it is essential to have some high volume standard products to absorb overheads. They say that any manufacturer which concentrates only on low volume special circuits is unlikely to be profitable.

The British Government's strategy is therefore to seek a compromise. It has identified four separate categories of integrated circuits:

1—Standard mass-produced components like computer memories.

2—Standard components with special performance characteristics.

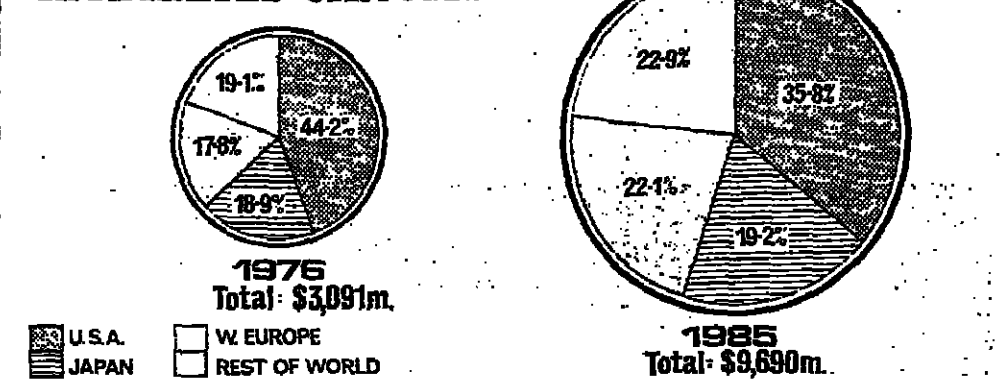
3—Standard components specific to a particular industry.

4—Special circuits designed for a particular customer.

## High volume

It has been agreed that the U.K. owned companies in the field, Plessey, Ferranti and the General Electric Company should concentrate on the last three categories. They will try to gain high volume sales with circuits in the third group, for example with components for the motor car or telecommunications industries. It is thought that there may be specifically European applications which could provide high volumes for a U.K. manufacturer but would not interest the Americans. One example might be in special circuits for telecommunications like the Post Office's System X. Another could be in circuits for

## WORLD MARKETS FOR INTEGRATED CIRCUITS



television receivers which operate on different standards in the U.S. and Europe.

Competition in the market for components which are standard throughout the world will probably be left to the multi-nationals.

To promote a U.K. capability in this field, the Government would be most likely to give aid to Mullard, the Philips subsidiary, or to IIT which has a factory in Kent. It is already making advanced computer memories with 16,000 cells on each chip and is developing a memory with 64,000 elements.

The Government's general strategy is based on the idea that progress will depend very largely on the U.K.'s ability to attract and hold able designers and technologists. It is argued that a great deal of the change of technology in the U.S. and elsewhere takes place informally as the best people change jobs. This is part of the reason why it is thought that multinationals with research departments in the U.K. should be considered candidates for Government subsidy.

The British Government's strategy differs in important respects from those of the main competitors in Europe, France and Germany. It is, however, recognised in all countries that the chance of beating the Americans in the market for standard components is slim.

The German Government is spending some £75m. in its four year support programme run-

ning from 1974 to 1978. Total investment, including contributions from industry is estimated at around £150m. in the period.

No decision has been taken on funding after 1978, but it is likely that support will have to continue at a considerably higher level. The major manufacturer is Siemens with AEG as its main German-owned competitor.

Support for Siemens is likely to be the lynch pin of German policies, since Siemens has the financial strength to undertake the rapidly increasing capital costs and the ability to buy further American companies.

The strategy of buying American technology has already been adopted by Philips of Holland with its acquisition of Signetics. The French Government on the other hand appears to favour a joint venture. This idea appears to underlie the offer of £70m. to Thomson CSF and La Radiotechnique Comptel.

Meanwhile the European Commission is making a renewed effort to promote co-operation across national boundaries. Hopes of a comprehensive pan-European programme faded last year because governments, particularly the Germans, were not prepared to make their support conditional upon companies co-operating with a European scheme.

The steeply increasing capital and development costs in the integrated circuit industry may perhaps give a new impetus towards international co-operation. The next generation of circuits will require machines which can bombard silicon chips directly with electron beams.

This method of forming patterns of transistors will replace the present etching process which uses masks similar to those in printing. Electron beam lithography will be needed to achieve the much higher densities of the future.

Fairchild estimates that the machinery for making chips will be 20 times more expensive by 1982.

This enormously increased "entry fee" will certainly be afforded by Siemens and the German Government, and probably by the French. But the high capital costs will make it more and more absurd for the U.K. effort to be split between three relatively small plants. Some sort of merger would seem highly desirable if not essential; but for the moment the Government appears reluctant to renew its unsuccessful efforts to push the companies together.

However GEC is very sceptical whether such a move would be desirable. Its strategy so far has been to try to keep abreast of developments by having a limited production of integrated circuits, but to buy the bulk of components it needs from the cheapest source, which is often America.

## Letters to the Editor

### Nationalised industries

**in the President.**  
The debate about the control of nationalised industries, contrary to Mr. Cockfield's suggestion (April 13), has not been on a meaningless basis. It is not a question of return on investment, but of performance, but they are essential in any system of indicators.

Investment by Post Office Telecommunications recently has a nudging on £1bn. yearly; before some indication of the return on assets earned by telecommunications is necessary for Government and the Post Office to know whether the expenditure is worthwhile. For the target of 2 per cent. return on turnover is sensible over 70 per cent. of costs for labour. It is very much the interests of users that the business has some cash and with which it can experiment by introducing new services, and take risks in market. The profit margin also gives a flexibility for the timing of price increases, and most important, ensures that those on a scale of 1975 will not be affected. Additionally, a profit is good for motivation, when hit, good for morale.

Many areas of the public sector, particularly in the Post Office, are not always subject to the same discipline. It is doubtful if the public will accept the withdrawal of postal and telephone services in rural areas, which would be a likely consequence of the monopolies. In circumstances we have to devise a system of controlled monopolies by which monopolists are subject to non-competitive disciplines. These have to be devised with care since they are too restrictive, management are denied flexibility, managerial functions become used to bureaucratic ones and the consequent loss of job satisfaction will result in the loss of quality management. Thus idea of a fairly rigid system five year plans and pricing ed by Mr. Cockfield is likely to be counterproductive if it is.

One of the main criticisms in NEDO study of the present system of control for the nationalised industries was the lack of time required to obtain consent from sponsoring ministries to major policy decisions. If the Parliamentary system was added to the present system in the way Mr. Cockfield suggests, the decision making process would be further delayed.

A solution to the problem of controlling nationalised industries, I suggest, lies in giving the powers and improving the professionalism of the industry councils. If the role is expanded to take a "consumer audit" function with the right to require annual reports of the industry, management will be left sufficient freedom to plan, subject to a powerful, live nor counterproductive, could also leave Parliament to concentrate on strategic issues, rather than involve it in detail about investment specific pricing issues with which it is ill equipped to deal.

Uckfield Street, W.I.

### No better off

**From the prospective Liberal Parliamentary candidate for Mid-Sussex.**

Sir—Your usual post-Budget tax tables (April 12) showing the theoretical tax savings at varying salary levels is most misleading, particularly in the range of middle management.

The man on £10,000 in the current tax year would not have been earning that figure last year. The average man in that range would have substantial mortgage outgoings together with pension contributions and life assurance premiums.

If we rework your example for a married man without children who has £1,000 per annum in mortgage interest and whose salary of £9,000, last year, was increased by 10 per cent. within Government guidelines, we get the following result:

	1977-78	1978-79
Gross salary	9,000	9,900
Income tax	2,285	2,458.50
Net salary	6,715	7,441.50

The result for this individual, is that his gross salary has risen by 10 per cent., his net salary also by 10 per cent. and the retail price index by 10 per cent. He is, therefore, no better off as a result of Mr. Healey's Budget.

By his rigid conservatism in rejecting Liberal proposals for a switch from direct to indirect taxation (to which even the Conservatives seem now to be converted) Mr. Healey has thrown away a golden opportunity to remedy the situation whereby over 80 per cent. of Government revenue is obtained from personal income tax. High tax on earnings kills incentive and obviates any possibility of surplus and there lies much of the cause of our present economic ills.

Jack Campbell,  
Rosemary Avenue,  
Stevington, West Sussex.

### Unallocated surplus

**From the Economic Adviser, Bunge and Co.**

Sir—Once again I see that the balancing item of +£2.6bn. for 1977 is published without any reference whatever to its size.

It means that the Bank of England is holding £2.6bn. for 1977 which ultimately will be allocated to U.K. capital or revenue transactions. Surely a little helpful comment in the Budget Statement is in order?

If the balancing item is allocated to revenue account it means that either exports in 1977 were under-valued or imports over-valued. In either event the reported trade deficit of £35m. is replaced by a "thumping" good surplus. It is allocated to capital account then the levels of domestic savings, to fund the public sector borrowing requirement, are significantly lower than reported.

It is impossible for outsiders to do more than offer guidelines and ask questions which are meant to be helpful to the authorities concerned. My own efforts have been illustrated anomalies in the trade figures which I believe show import values have been over-reported by nearly £1bn.

My point is, because of the omitted explanation, many economists are unable to record

### Unsocial work

**From Mr. J. Riley.**

Sir—Is there not a good case for employers and unions to get together to negotiate a productivity deal with the Chancellor of the Exchequer to compensate both firms for their financial loss, and certain employees for the unsocial work involved, in calculating the effects of, and later explaining, the Social Security Pensions Act 1975, taxation changes, code number alterations, child benefit changes etc. to befuddled and sometimes irate workers? Does the Chancellor realise that many people board up their letterboxes and go into hibernation for the winter, and that these changes in legislation fall like a bomb-shell upon them in week 1 of the tax year?

Jack Riley,  
18, Canterbury Avenue,  
Lancaster, Lancs.

### Reduced rates

**From the Leader, Southampton City Council.**

Sir—While I was pleased to see that the chief executive of Winchester City Council stated (April 11) that Southampton City Council had also reduced its rate for the current year he did not mention that we made a similar reduction last year when rates nationally increased on average by more than 10 per cent. I feel certain that few if any other authorities in the country have been able to reduce their rate twice in the past two difficult years.

This does not, however, tell the full story. By careful scrutiny of services and good management, economies in excess of £1m. have been made and the city council's capital debt reduced by about the same amount since we gained control from the previous Socialist administration. And we have rightly passed the benefit of the savings achieved to the ratepayers.

Not only has this been accomplished without adverse effect on essential services but we have secured necessary growth of 7.5 per cent. over Government guidelines during the same period. In essence we have not back and moved forward at the same time.

Positive proof that progress with economy is possible.

Norman A. Best,  
Members Room, Civic Centre,  
Southampton, Hants.

### Grants for insulation

**From the Managing Director, Drayton Controls (Engineering).**

Sir—I see that in endorsing the proposed grants scheme for insulation in private dwellings, the Prime Minister draws on his own experience. He says that he insulated the house, and his bedroom is now five degrees warmer. What a pity he did not fit thermostatic radiator valves upstairs to prevent this temperature rise: then we would have saved the country some fuel and himself some money!

M. M. Brew,  
West Drayton, Middlesex.

### Incentive schemes

**From the Chairman, Appleton Incentive Techniques.**

Sir—The Chancellor claims to recognise the need to restore the incentive to work. The changes he proposes are minimal and benefit most in percentage terms those at the bottom end of the wages ladder, whereas it is widely believed the greatest encouragement is needed at the middle and higher end. Apparently the same principle is to be extended into profit sharing schemes where a ceiling of £500 is to be imposed on the annual allocation to any one individual.

We must therefore look elsewhere for incentives for executives. Many successful companies adopted share option and share incentive schemes in the early 1970s from which this early 1978 move by the Chancellor in the Finance Act 1974. Presumably it is politically impossible for Mr. Healey to

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Norman A. Best,  
Members Room, Civic Centre,  
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### Industrial training

**From the Group Services Manager, Aylesbury Industrial Group Training Centre.**

Sir—Mr. W. Whalley's reaction (April 7) to the criticism by Mr. W. E. G. Woods of the proposal to move initial craft training into our schools surely cannot be regarded as serious comment on what is an issue of national concern. The point of Mr. Wood's letter was to encourage the belief that industrial training was properly the prerogative of industry itself and not that of the education system, which after all has yet to demonstrate its general competence in instilling basic literacy and numeracy into our youth.

The teaching of domestic self sufficiency in the class room is not under attack and long may it continue.

From his final paragraph I am also left to wonder whether Mr. Whalley is aware of the enormous annual cost to the nation of industrial accidents. Indeed, the Royal Society for the Prevention of Accidents might have something to say on accidents in the home by well intentioned DIY enthusiasts.

B. P. North,  
Guthrie House Close,  
Aylesbury, Bucks.

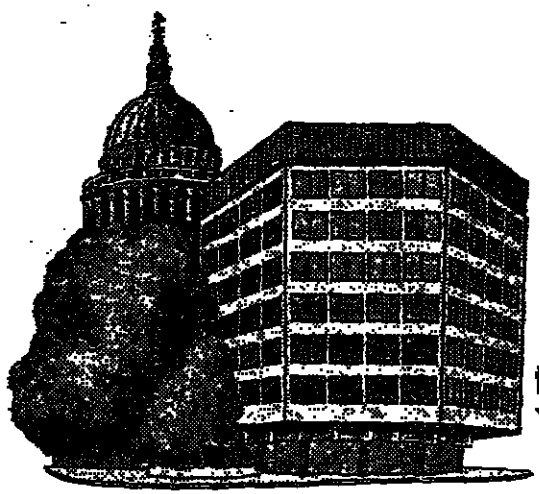
## To-day's Events

**GENERAL**  
Mr. Harold Brown, U.S. Defence Secretary, holds London talks on neutron bomb with Prime Minister and Mr. Frederick Mulley, Defence Minister.  
Dr. David Owen, Foreign Secretary, and Mr. Cyrus Vance, U.S. Secretary of State, due to arrive in Rhodesia following Friday talks in Dar es Salaam with Mr. Joshua Nkomo and Mr. Robert Mugabe.  
Patriotic Front leaders and Sunday day discussions in South Africa with Mr. P. W. Botha, its Foreign Minister.  
EEC Finance Ministers meet, Luxembourg.  
Scottish TUC conference opens, Aberdeen (until April 21).

**Law of the Sea Conference** continues, Geneva.  
Nominations close for by-elections at Epsom and Ewell and at Wycombe (polling day in both constituencies is April 27).  
Sixth World Conference of Retailers is opened at Grosvenor House, W.1. by Mr. Edmund Dell, Trade Secretary, together with Mr. Joseph Godber MP, chairman, Retail Consortium, and Mr. Herbert E. Strawbridge, co-chairman, International Committee, National Retail Merchants' Association of New York.

**European League for Economic Co-operation** dinner, Mansion House, E.C.4.  
Combined three-day meeting of European Nuclear Medicine Society and British Nuclear Medicine Society opens at Imperial College, S.W.7.  
Institute of Practitioners in Advertising annual report.  
Conference of British and Polish coal mining and utilisation experts opens at Mining Research and Development Establishment, Bletby, Leicestershire (until April 20).  
Plastic Industries Exhibition

opens, Belle Vue, Manchester (until April 21).  
**PARLIAMENTARY BUSINESS**  
House of Commons. Conclusion of Budget debate. Second reading of Judicature (Northern Ireland) Bill.  
House of Lords. Debates on problems of widows and on a review of the Children and Young Persons Act.  
**OFFICIAL STATISTICS**  
Retail sales (March, provisional).  
**COMPANY RESULTS**  
Blackwood Hodge (full year).  
Currys (full year).  
**COMPANY MEETINGS**  
See Week's Financial Diary on page 7.



Bank of Boston House, 5 Cheapside, E.C.2

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## COMPANY NEWS

## William Collins changes borrowing structure

ACTION is being taken by William Collins and Sons (Holdings) to reduce its borrowing. The company has announced a new structure of capital, which will be in place by the end of the year.

In his annual statement Mr. W. J. Collins, chairman, reveals that the group has accepted an offer of a 15 year unsecured loan of £10m from Finance Corporation for Industry. This will be used to reduce indebtedness to banks, who have agreed the early repayment of a £10m term loan in 1980, and in the removal of their floating charge over the U.K. assets of the group.

The increase in borrowings came about primarily because of an increase in stocks, part of which was due to sales being lower than anticipated. Stocks at December 23 stood at £10.4m, against £15.3m, a year earlier, but the chairman says that steps are now being taken to reduce this level.

Group profits before tax in 1977 fell by 41 per cent, to £3.1m, reflecting the combined effect of lower than expected sales together with pressure on margins.

Sales in the first quarter of 1978 show a small increase on last year and looking ahead to the remainder of the year the chairman expects to see an improvement in both sales and profit.

The market for books in the U.K. is still difficult and prospects depend largely on an increase in consumer spending.

With an outstanding year behind it, the general trade publishing division is looking to another good year with a strong list of new titles. The chairman points out that this augurs well for Fontana Paperbacks which derives much of its best-selling titles from the group's hardback list.

In international markets Australia has set off to a good start, but Mr. Collins stresses that it is difficult to predict performance with any confidence against a background of depressed economic conditions which still prevail in most of the group's main markets. The final results expressed in sterling will also depend very much on the exchange rate ruling at the end of December, 1978.

Looking beyond the immediate future, however, the chairman considers that the underlying growth prospects of the business are still strong.

Referring to the completion of the group's new complex at Bishopbriggs the chairman says:

## A new addition to the Extel Taxation Service

## Extel Fixed Interest Record

is due for publication in May

For each stock, the FIXED INTEREST RECORD will show Interest Payments, Tax Credits, Dates Payable, Holders Registered Dates and the Ex Dates.



Extel Statistical Services Limited  
37-45 Paul Street London EC2A 4PB Tel: 01-253 3400

## BROWN BOVERI KENT

## INCREASED PROFITS AND RIGHTS ISSUE

	12 months to Dec 31 1977	9 months to Dec 31 1976
TURNOVER	£68.8m	£47.1m
PROFIT BEFORE TAX	£6.3m	£3.0m
PROFIT after tax and minorities but before extraordinary items	£3.5m	£1.5m
EARNINGS PER SHARE	8.07p	3.44p
DIVIDENDS AND PROSPECTS	1.76p	1.20p

NOTES (a) A relatively low tax charge of £2.1m (1976 £1.1m) results primarily from the utilisation of past tax losses in the UK, but full provision has been made for deferred taxation according to the liability method.

(b) The strengthening of sterling relative to most other currencies during 1977 gave rise to a reduction in the apparent value of the Group's overseas assets of £250,000—charged as an extraordinary item (1976 profit £463,000).

## Points from the Chairman's Statement

## HIGHER VOLUME

"Ignoring the effect of exchange rate movements, orders received increased by about 19% and sales by about 14% compared with the previous twelve months."

## INVESTMENT

"Total fixed asset expenditure rose to £2.8m and outstanding commitments also increased... proposals for a new factory near Stroud for completion in 1979 were recently announced."

## DIVIDEND AND PROSPECTS

"The Board recommends a final dividend of 1.0p per share payable 3rd July."

"It is hoped that a further increase in sales volume will be achieved during the current year and that overall trading results will be satisfactory."

## RIGHTS ISSUE

"It is proposed to raise approximately £3.8m by means of an issue of 10,856,584 new Ordinary shares at 36p per share on a one for four basis.

In the absence of unforeseen circumstances, it would be the Board's intention to recommend net dividends totalling not less than 2.2p per Ordinary share for the year ending December 31, 1978 on the Ordinary share capital as increased by the Rights Issue."

Copies of the Report and Accounts will be available after April 25, 1978.

Brown Boveri Kent Limited (54.5% owned by BBC Brown Boveri Ltd, of Switzerland), is the parent company of George Kent Limited, the International group in industrial instruments, process control and liquid measuring.

Brown Boveri Kent Limited, Bliscom Road, Luton, Bedfordshire LU3 1AL.

## Gibbons Dudley expects rise

Mr. Roger D. Turner, chairman of Gibbons Dudley, anticipates that profits for the current year will show a further advance, the second six months proving to be more profitable than the first.

He says in his annual statement that it is difficult to foresee any real improvement in the trading climate of the refractories division. Nevertheless, further losses at Gibbons Refractories are not expected and better results are anticipated. The building products side should in the second six months reflect the benefit that will arise from the new factory and results should show a further advance.

In the engineering division a shortening of the forward order book is causing some concern. However, the planned contract completions for the current year should provide similar results to those for 1977.

With an anticipated increase in industrial activity generally, the industrial estates division is looking to an increase in its profits. Capital expenditure is continuing at a high rate and therefore no investment income can be expected.

As reported on March 17, taxable profit for 1977 advanced from £3.8m to £4.23m, on turnover of £51.7m, against £36.53m.

A divisional analysis of turnover and trading profits (£2000 omitted) shows:

Refractories £12.753 (£11.652) and £445 (£1,086); building products £10.515 (£9.995) and £1,426 (£1,413); engineering £27.712 (£14,141) and £1,884 (£702); industrial estates £1.761 (£1.761) and £482 (£410); parent company profits £133 (£106).

On a current cost basis taxable profits are £22.5m, after additional depreciation of £125m, and additional adjustment £0.64m, and gearing adjustment £0.15m.

Following an assessment of the deferred tax position which it is considered prudent to reserve £4.33m, has been released from deferred tax to reserve.

Capital expenditure incurred during the year amounted to £6.13m, and although working

rent reviews, progress continues to be made and since the year end new lettings have been negotiated with rents of £233,000 per annum—£133,000 in the U.K. and £100,000 in Belgium—only part of which will benefit the 1978 accounts.

Other negotiations are in hand and there is still good potential for increasing income.

Further progress has been made in dealing with the group's debt; the net short term position improved by over £2m, half of which reflects the rise in sterling. A Euro-dollar loan of £973,905 will be repaid in May. It is the Board's policy to take advantage of any reasonable opportunities to fund short-term debt by borrowing for longer terms.

Investment properties sold during the year realised a surplus of £1.3m. In selling properties it is the Board's policy to improve the portfolio as well as raise money for debt repayment.

In 1977 net rental income in the U.K. increased by £27,950, and in Belgium by £89,099; in Australia there was a fall of £1,796. The rise in U.K. trading profits is largely due to one transaction. Trading in properties should not be expected to contribute to profits in the U.K., on the same scale every year. In Australia, the estimate is far larger profits in 1978.

Property outgoings rose from £2.4m to £3.01m, reflecting the completion of new buildings. Interest charges are lower but the amount chargeable against profits is much higher at £2.51m, against £1.88m. A further fall is likely in 1978 and the chairman feels that at least some of this should increase earnings.



## Gibbons Dudley Ltd

## A fifth year of continued growth

- Highest ever profit in 1977 at £4.225 million
- Profits five times those of 5 years ago
- Group sales exceed £50 million for first time
- Capital expenditure an all time high at £6 million

Copies of the Report & Accounts may be obtained from The Secretary,  
P.O. Box 19, Dudley,  
West Midlands DY3 2AQ.

Refractories, Building Products, Engineering, Industrial Estates

## BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official decisions are not available whether dividends concerned are to be paid or not, and the subdivisions shown below are based mainly on last year's timetable.

Company	Date
Interim—Equity Income Trust	
Final—Blackwood, Jodzo, Change	
Warus, Currys, Hoversham, Jersey	
Neurich, London Union Investments,	
Newcastle, Reed Economic, Newcast,	
Chemicals, Remy Portland Cement,	
FUTURE DATES	
Interim—	
Berard Rubber Estates	April 15
Long and Humberly	April 15
North Midlands Cementation	April 15
Wade Patteries	April 15
Final—	
Colclough (George M.)	April 15
Canadian and Foreign Invest.	April 15
Corall Leisure	April 15
Rawker Siderley	April 15
Miller (F.) (Textiles)	April 15
Spong	April 15
United Carriers	April 15

capital increased by £840,000 a strong liquid position was maintained. Capital expenditure sanctioned at December 31, 1977, totalled some £4.8m, (£5.83m) in respect of which regional development grants of £714,000 are anticipated. Contracts placed against these sanctions at that date amounted to approximately £1.12m, (£3.44m).

## TALBEX

Talbex, the soap to hairdressing concern, has revealed that the private engineering group for which it has made a bid approach is closely linked to one of its major shareholding groups—the Iranian Investment Trust and Wobaco Trust, which have a 20 per cent stake in Talbex.

Artec, the Bahamas based bank, was the engineering group concerned as well as acting as advisers to the Iranian Investment Trust and Wobaco. Consequently these Middle East interests will not be voting at any forthcoming EGM, when Talbex is due to announce the bid terms.

## Auditors qualify Law Land accounts

THE AUDITORS of the Law Land Company point out in their report that no provision has been made in the group's accounts to write down the value of property trading stocks in the U.K. and Australia.

The directors estimate that an open market valuation would show in the U.K. surplus of £908,092 and deficits of £392,053, giving a net surplus of £516,039 over the aggregate cost of £3.71m; and in Australia surplus of £374,474, giving a net surplus of £474,474 over the aggregate cost of £4.04m.

The directors say that the situation is constantly changing and they are continuing the policies including such properties in the balance sheet at the lower of cost and aggregate valuation.

In the auditors' opinion, to comply with current accounting practice, the property trading stocks at December 31, 1977, should be written down by £1.33m, the total of the two deficits.

The result of this adjustment would be to reduce group reserves brought forward at January 1, 1977, by £1.8m, and to increase the net profit for the year by £598,754.

In 1977 the group incurred investment losses of £1.16m, £0.37m in Australia and £1m in Belgium—and this was only offset by trading profits of £1.29m, to leave the pre-tax balance sheet at £154,337 against £874,791.

Sir Henry Warner, chairman, says that the immediate outlook for the group continues to depend on the successful letting of properties whether empty or due for

## NEWS ANALYSIS—WILSON COMMITTEE EVIDENCE

## Ode to an OTC

BY NICHOLAS COLCHESTER

M. J. H. Nightingale and Co., a small investment bank, claims in evidence to the Wilson Committee that an "over-the-counter market" (OTC) is needed to help plug the "equity gap"—the lack of entrepreneurial equity capital that has allegedly arisen out of dwindling private wealth and growing institutionalised savings.

It claims that an OTC market on the American model would provide an ideal "halfway house" between family or venture-capital investment and the broad public market of the Stock Exchange. It therefore asks the Committee to encourage the OTC market as an independent institution and to include the OTC market as part of the committee's forthcoming survey on the supervision and regulation of financial institutions.

For the last six years Nightingale has been running a self-styled "OTC market" on a one-man-band basis, acting as banker, broker, dealer, market place, rule maker and rule enforcer. Its evidence gives a good picture of the American precedent for an OTC and how Nightingale has attempted to follow it. It claims, inter alia, that Nightingale's OTC has handled 100 of the 22 new public offerings made in Britain over the last 27 years and that 56 institutions now deal in the OTC's 15 securities.

The Stock Exchange, in whose hide Nightingale has long been a thorn, gets some fresh jobs in this evidence. Nightingale claims that small companies quoted on the OTC get a higher share price, are less vulnerable to take-over, have a more stable list of shareholders, and pay substantially less than they would if quoted on the Exchange.

The Stock Exchange has claimed in its own Wilson evidence that its provision for dealing in unlisted securities—Rule 163 (2)—could, if better publicised, go some way towards meeting any demand for a market in small company securities. But its representatives have said that in order to preserve the attraction of a Stock Exchange listing they "have to

avoid too good a form of market for these companies." Nightingale has, of course, pounced on its evidence upon this division of loyalties with relish.

The fact remains that one still does not make an OTC market. Nightingale is having to face up to a dilemma of its own having operated as a one-man-band for six years it must now get others into the game to provide some visible competition. It must pass regulations of the market on to some higher authority and count itself among the regulated. This is a tough pill to swallow for a bank that runs and profits from a little "market" of its own creation.

The evidence tells of Nightingale's intentions in this direction but cannot yet tell of any concrete advances. It wants an OTC supervisory council set up whose membership would be composed of small company executives, small company investors, and OTC dealers. The council would be under the umbrella of the new "Council for the Securities Industry" (CSI), currently being organised by the Bank of England.

Nightingale is in the process of drawing up draft rules for the widened over-the-counter market and will be prepared to deliver them to the Wilson Committee on demand. There is, however, no undertaking yet from the Bank that the CSI will accommodate this newcomer.

The Stock Exchange is strongly opposed to fragmentation of the securities market and given its weight in the preparation of the CSI, an official blessing of the Nightingale initiative would be a most remarkable development.

Yet without an authority independent of Nightingale to police the market it remains most unlikely that other City firms will feel tempted to play their part in the OTC market. And without this competition the OTC must remain suspect.

A market made, like the American OTC, by dealers trading directly with the public must have its prices constrained self

by competition if they are to be "fair prices." This solitary Nightingale claims only to match buying and selling interest in the stocks on its OTC, taking no dealer's turn and building up no position in the securities. Nevertheless it offers an Achilles Heel to its critics by acquiring a Warranty to buy up to five per cent of all companies quoted in its market.

The potential conduct of interest is obvious and Nightingale can only justify it by pointing out that it is obvious to all who trade on the Nightingale OTC. Warrants are one of Nightingale's major incentives in creating this "market" for small companies. Its argument that the same incentive is found across the OTC in the U.S. would be stronger if there were 50 OTC market makers competing in Britain—the number who ply this market in America.

Behind the small skirmish between the Nightingale OTC and the Stock Exchange Rule 163 (2) lies the larger question: whether a new trading system for small companies is really needed. Nightingale argues that an OTC market will help plug the equity gap, and this is really an assertion that an improved secondary system of trading will help stimulate primary market for small company securities. The Stock Exchange, evidently is not convinced.

The Wilson Committee can talk to all the parties involved here—small companies, venture capital companies, entrepreneurial investors, institutional investors. It should be able to decide whether the shift in the structure of savings requires a change in the system of share trading to unleash the institutional cash upon the small company sector. A priori, it would seem far more likely that if business and taxation conditions were changed in a way that would stimulate primary investment in small companies, the problem of secondary trading in their shares would look after itself.

John Jacobs dividend policy

UNTIL THERE is an upturn in a £383,469 bank overdraft eliminated and balances banked of £415,855 (£337,796), and no holding of sterling certificates of deposit, serious negotiation for the occupation of one of the two floors that it formerly occupied at Winchester House, E.C.4, and has some equity during the year, and arranged a reasonable share of the total premises transacted in London. The group is currently well placed for when, hopefully, there is much more business to be done at Con-May 12, 11.30 a.m.

Further progress has been made in dealing with the group's debt; the net short term position improved by over £2m, half of which reflects the rise in sterling. A Euro-dollar loan of £973,905 will be repaid in May. It is the Board's policy to take advantage of any reasonable opportunities to fund short-term debt by borrowing for longer terms.

Investment properties sold during the year realised a surplus of £1.3m. In selling properties it is the Board's policy to improve the portfolio as well as raise money for debt repayment.

In 1977 net rental income in the U.K. increased by £27,950, and in Belgium by £89,099; in Australia there was a fall of £1,796. The rise in U.K. trading profits is largely due to one transaction. Trading in properties should not be expected to contribute to profits in the U.K., on the same scale every year. In Australia, the estimate is far larger profits in 1978.

Property outgoings rose from £2.4m to £3.01m, reflecting the completion of new buildings. Interest charges are lower but the amount chargeable against profits is much higher at £2.51m, against £1.88m. A further fall is likely in 1978 and the chairman feels that at least some of this should increase earnings.

Net liquid funds at year end were down £8,472 (£7,61m) with

NOTICE OF REDEMPTION to Holders of

## GENERAL CABLE OVERSEAS N.V.

8½% Guaranteed Bonds 1979/87

NOTICE IS HEREBY GIVEN that pursuant to Section 5 (a) of the terms and conditions of the Issue whereby £500,000 principal are to be redeemed at par on 15th May 1978 the following Bond serial numbers have been drawn for redemption in the presence of Notary Public at a price equal to 100% of the principal face amount.

BONDS OF \$2,000 EACH									
3	1471	2940	4409	5878	7346	8814	10282	11691	13100
4	1528	3008	4497	5966	7434	8902	10300	11709	13118
5	1585	3065	4554	6023	7491	8959	10357	11766	13175
6	1642	3122	4611	6080	7548	9016	10414	11823	13232
7	1699	3179	4668	6137	7605	9073	10471	11880	13289
8	1756	3236	4725	6194	7662	9130	10528	11937	13346
9	1813	3293	4782	6251	7719	9187	10585	12000	13403
10	1870	3350	4839	6308	7776	9244	10642	12057	13460
11	1927	3407	4896	6365	7833	9301	10699	12114	13517
12	1984	3464	4953	6422	7890	9358	10756	12171	13574
13	2041	3521	5010	6479	7947	9415	10813	12228	13631
14	2098	3578	5067	6536	8004	9472	10870	12285	13688
15	2155	3635	5124	6593	8061	9529	10927	12342	13745
16	2212	3692	5181	6650	8118	9586	10984	12399	13802
17	2269	3749	5238	6707	8175	9643	11041	12456	13859
18	2326	3806	5295	6764	8232	9700	11098	12513	13916
19	2383	3863	5352	6821	8289	9757	11155	12570	13973
20	2440	3920	5409	6878	8346	9814	11212	12627	14030
21	2497	3977	5466	6935	8403	9871	11269	12684	14087
22	2554	4034	5523	6992	8460	9928	11326	12741	14144
23	2611	4091	5580	7049	8517	9985	11383	12798	14201
24	2668	4148	5637	7106	8574	10042	11440	12855	14258
25	2725	4205	5694	7163	8631	10099	11497	12912	14315
26	2782	4262	5751	7220	8688	10156	11554	12969	14372
27	2839	4319	5808	7277	8745	10213	11611	13026	14429
28	2896	4376	5865	7334	8802	10270	11668	13083	14486
29	2953	4433	5922	7391	8859	10327	11725	13140	14543
30	3010	4490	5979	7448	8916	10384	11782	13197	14600
31	3067	4547	6036	7505	8973	10441	11839	13254	14657
32	3124	4604	6093	7562	9030	10498	11896	13311	14714
33	3181	4661	6150	7619	9087	10555	11953	13368	14771
34	3238	4718	6207	7676	9144	10612	12010	13425	14828
35	3295	4775	6264	7733	9201	10669	12067	13482	14885
36	3352	4832	6321	7790	9258	10726	12124	13539	14942
37	3409	4889	6378	7847	9315	10783	12181	13596	14999
38	3466	4946	6435	7904	9372	10840	12238	13653	15056
39	3523	5003	6492	7961	9429	10897	12295	13710	15113
40	3580	5060	6549	8018	9486	10954	12352	13767	15170
41	3637	5117	6606	8075	9543	11011	12409	13824	15227
42	3694	5174	6663	8132	9600	11068	12466	13881	15284
43	3751	5231	6720	8189	9657	11125	12523	13938	15341
44	3808	5288	6777	8246	9714	11182	12580	13995	15398
45	3865	5345	6834	8303	9771	11239	12637	14052	15455
46	3922	5402	6891	8360	9828	11296	12694	14109	15512
47	3979	5459	6948	8417	9885	11353	12751	14166	15569
48	4036	5516	7005	8474	9942	11410	12808	14223	15626
49	4093	5573	7062	8531	9999	11467	12865	14280	15683
50	4150	5630	7119	8588	10056	11524	12922	14337	15740
51	4207	5687	7176	8645	10113	11581	12979	14394	15797
52	4264	5744	7233	8702	10170	11638	13036	14451	15854
53	4321	5801	7290	8759	10227	11695	13093	14508	15911
54	4378	5858	7347	8816	10284	11752	13150	14565	15968
55	4435	5915	7404	8873	10341	11809	13207	14622	16025
56	4492	5972	7461	8930	10398	11866	13264	14679	16082
57	4549	6029	7518	8987	10455	11923	13321	14736	16139
58	4606	6086	7575	9044	10512	11980	13378	14793	16196
59	4663	6143	7632	9101	10569	12037	13435	14850	16253
60	4720	6200	7689	9158	10626	12094	13492	14907	16310
61	4777	6257	7746	9215	10683	12151	13549	14964	16367
62	4834	6314	7803	9272	10740	12208	13606	15021	16424
63	4891	6371	7860	9329	10797	12265	13663	15078	16481
64	4948	6428	7917	9386	10854	12322	13720	15135	16538
65	5005	6485	7974	9443	10911	12379	13777	15192	16595
66	5062	6542	8031	9500	10968	12436	13834	15249	16652
67	5119	6599	8088	9557	11025	12493	13891	15306	16709
68	5176	6656	8145	9614	11082	12550	13948	15363	16766
69	5233	6713	8202	9671	11139	12607	14005	15420	16823
70	5290	6770	8259	9728	11196	12664	14062	15477	16880
71	5347	6827	8316	9785	11253	12721	14119	15534	16937
72	5404	6884	8373	9842	11310	12778	14176	15591	16994
73	5461	6941	8430	9899	11367	12835	14233	15648	17051
74	5518	6998	8487	9956	11424	12892	14290	15705	17108
75	5575	7055	8544	10013	11481	12949	14347	15762	17165
76	5632	7112	8601	10070	11538	13006	14404	15819	17222
77	5689	7169	8658	10127	11595	13063	14461	15876	17279
78	5746	7226	8715	10184	11652	13120	14518	15933	17336
79	5803	7283	8772	10241	11709	13177	14575	15990	17393
80	5860	7340	8829	10298	11766	13234	14632	16047	17450
81	5917	7397	8886	10355	11823	13291	14689	16104	17507
82	5974	7454	8943	10412	11880	13348	14746	16161	17564
83	6031	7511	9000	10469	11937	13405	14803	16218	17621
84	6088	7568	9057	10526	11994	13462	14860	16275	17678
85	6145	7625	9114	10583	12051	13519	14917	16332	17735
86	6202	7682	9171	10640	12108	13576	14974	16389	17792
87	6259	7739	9228	10697	12165	13633	15031	16446	17849
88	6316	7796	9285	10754	12222	13690	15088	16503	17906
89	6373	7853	9342	10811	12279	13747	15145	16560	17963
90	6430	7910	9399	10868	12336	13804	15202	16617	18020
91	6487	7967	9456	10925	12393	13861	15259	16674	18077
92	6544	8024	9513	10982	12450	13918	15316	16731	18134
93	6601	8081	9570	11039	12507	13975	15373	16788	18191
94	6658	8138	9627	11096	12564	14032	15430	16845	18248
95	6715	8195	9684	11153	12621	14089	15487	16902	18305
96	6772	8252	9741	11210	12678	14146	15544	16959	18362
97	6829	8309	9798	11267	12735	14203	15601	17016	18419
98	6886	8366	9855	11324	12792	14260	15658	17073	18476
99	6943	8423	9912	11381	12849	14317	15715	17130	18533
100	7000	8480	9969	11438	12906	14374	15772	17187	18590







## OVERSEAS MARKETS

## EUROBONDS

FOR THE SECOND time since April 1, the main story of the week was one of woe for sterling denominated bonds. Prices in the sector were hit for six by the rise of one point in the Minimum Lending Rate announced by the Chancellor of the Exchequer, Mr. Denis Healey in his budget speech last Wednesday. By the following evening, prices of most bonds had shed over two points as professional selling gathered momentum. Worse than expected trade figures on the last day of trading had a further dampening effect so that, by Friday evening, prices had fallen on average about four and a half points on the week.

The Gestelner issue held up better than most no doubt because of its smaller size and higher coupon. Although yields increased, dealers felt they were not attractive enough at current levels to entice buyers back into the market.

A further sign of the deteriorating trend in this market was that dealers were trading on wider spreads than is normally the case, usually between three quarters and a full point.

Few dealers were expecting a recovery this week. One of them argued that yields on longer France floater is the first such

issue by a French bank since the General Elections held in France last month. A private placement of floating rate notes is expected this week for the International Commercial Bank of China, which is based in Taiwan. Dillon Read is arranging this five year bullet issue which is expected to be set at a 1 per cent. over Libor with the minimum coupon set at 71 per cent.

The Deutsche mark sector had mixed fortunes last week with the more "exotic" names falling to fairly sharp discounts in the aftermarket. The issue for Spain and for Mexico, both of which had been priced at par were being quoted at a discount of three points on Friday. In contrast the Norway issue was being quoted at 99-99, despite carrying a very low coupon.

## BY FRANCIS GHILES

Clearly investors mind the fall in coupon less when it applies to top quality short term paper but feel that a 6 per cent. coupon soon.

Dresdner Bank is expected to announce a DM70m. private placement and Westdeutsche Landesbank should come to the market with a DM40m. private placement for a Norwegian borrower, both of them this week.

The climate in the Swiss franc sector of the market improved last week. Recent issues such as Compania Vale do Rio Doce, Asca and Hydro Quebec all posted gains.

They were respectively being quoted at 99, 99 1/2 and 98 on Friday. A SWFr30m. seven year private placement convertible with an indicated coupon of 3 1/2 per cent. is being arranged for the Japanese company Nagase by Credit Suisse.

Banque Generale du Luxembourg is expected to float a LuxFr400m. ten-year bond at par with a coupon of 7 1/2 per cent.

A decision on when to relaunch the 25m. unit of account issue for the City of Copenhagen, which was delayed last Monday, is expected to be taken early this week by lead manager Kreditbank Luxem.

## Indices

## NEW YORK - DOW JONES

	Apr. 14	Apr. 13	Apr. 12	Apr. 11	Apr. 10	Apr. 9	10/10		previous compilation	
							High	Low	High	Low
Industrial	755.15	775.21	768.29	770.18	773.05	768.58	8.724	742.12	101.77	41.22
Financials	89.84	89.21	89.20	88.50	89.35	89.35	30.08	78.12	(11.71)	(2.67)
Technology	213.77	203.50	207.44	207.76	206.80	200.82	24.11	158.31	279.58	15.25
Utilities	105.09	105.98	105.82	105.93	105.92	105.95	115.91	102.04	165.82	10.58
Trading Vol.	62,280	31,580	25,210	24,380	25,740	26,160	151	222.6	204.49	35.44



## FINANCIAL TIMES SURVEY

Monday April 17 1978

## International Retailing

Throughout the developed world retailing methods — and with them shopping habits — have been transformed in recent years. The underlying trend is towards rationalisation and concentration, with the corner shop facing growing competition from the big groups.

## Time of radical change

By Elinor Goodman

Consumer Affairs Correspondent

IN THE face of it shopping might seem a pretty parochial business with few claims to international status. Even the tourists who have flocked into London to do their shopping over the past few years are relatively insignificant in the wider scale of things. Most people shop where they live, so competition between retailers in different countries is relatively limited.

Yet in one sense retailing is truly international business. Throughout the developed world shopping habits have changed radically over the past years. The precise form of this revolution may have differed from country to country but the same broad trends can be seen almost everywhere and for the most part the reasons behind them are the same.

The abolition of Resale Price Maintenance in the 1960s in most European countries, the increase in affluence in general and car ownership in particular, and the trend towards more men going out to work have

all taken their toll on the old shopping order. To-day's working woman no longer has the time—or indeed the inclination—to spend her day buying cheese in one shop and soap in another. Increasingly she wants to be able to do all her basic shopping under one roof and preferably park her car nearby while she is doing it.

She may hanker for the days of personal service—and indeed still demand it when it comes to buying something like clothes—but rarely is she prepared to accept the need to pay for it. Increased price competition is a feature of grocery retailing throughout Europe and North America. In many countries this emphasis on price has extended to other sectors like electrical durables; new discount specialist chains have emerged putting pressure not only on the private trader but also on the department store, and in some cases on the variety chains too.

But in most countries it has been the independent traders—notably those selling food—which have suffered most from the change in shopping habits. In every developed country the independent shops have come under increased pressure from the multiples. In some countries, particularly on the Continent, the small shopkeeper lobby has wielded enough political clout to succeed in its demands for some measure of legislative protection. In others, like Switzerland and Sweden, the rate of shop closures has resulted in government itself looking for some way of ensuring that their smaller rural communities are not completely denuded of shops.

But as yet no government has been able to halt what looks

like the inevitable trend towards greater concentration in retailing—a trend which most economists would argue has resulted in a far more efficient distribution system than the old fragmented market-place. According to one set of figures, the number of shops in the 14 major European countries fell by 350,000 to 3.4m. in the ten years to 1975. Of those closed, 300,000 were in the food sector.

The one solution to the private trader's problems which does seem to have worked has come not so much from government but from the trade itself in the form of the voluntary groups which now operate in most European countries—though interestingly enough, not in the States, where the independent sector is still very strong outside the food business.

Governments, most notably perhaps the British, have been more successful in slowing down one of the other trends which have emerged in retailing over the last ten years—namely the move towards much larger stores built outside established shopping centres.

## Increased

Again, most countries within the EEC now have some restrictions on large-scale shopping developments. But despite these, the average store size has increased out of all recognition over the last ten years and the word hypermarket has become an accepted part of the retailers' vocabulary. In some countries like France, where, though, hypermarkets may have reached their optimum size. Many European towns are now ringed by new covered shopping developments and while it could

RETAIL SALES IN W. EUROPE 1975		
	\$bn.	Average sales per sq. ft. \$ p.a.
EEC	17.8	240
Belgium	12.3	395
Denmark	82.7	279
France	109.1	279
West Germany	3.3	176
Ireland	57.8	166
Italy	25.4	296
Netherlands	56.5	170
U.K.	363.9	232
Non-EEC		
Austria	9.5	
Norway	8.7	
Spain	38.6	
Sweden	21.1	
Switzerland	18.2	
Total	94.1	

Source: Management Horizons (U.K.).

Most of the figures used in this survey have been provided by Management Horizons (U.K.) and the Euromonitor publication Retail Trade International.

be argued that these centres have merely added to over-capacity, the facilities they provide are often more in tune with the shopping needs of today than those offered in the old centres.

The recession of the last few years has highlighted the problem of over-capacity for retailers in many parts of the world. With the volume of retail sales down in most markets in real terms—in Switzerland they have actually fallen in cash terms too—of the boom years, so there was

fighting among themselves for a larger share of a smaller cake. The most vivid example of this has been the price war among supermarkets in Britain but retailers throughout the Western world have had to fight harder for sales.

The effect of this increased competition in many markets has been to accelerate the rate of store closure and to put pressure on profits. Admittedly retail chains in some countries had done very well indeed over the boom years, so there was

on during the lean years. But in countries like Germany and the U.S., there have been casualties which have resulted in long-established names going out of business. In most countries retailers have tried to cut back on staff, though in Europe distributors are employing more people than 10 years ago.

The response of some chains which have found themselves either under profits pressure in their home market or stuck for sales growth has been to look overseas. In Britain, Marks and Spencer, Mothercare, Boots, W. H. Smith and Habitat have expanded abroad with varying degrees of success. Among Continental groups, retailers like Carrefour have expanded right across the EEC and are now looking towards less-developed—and less-lettered—markets like Spain and Brazil for future expansion. Others, like Albrecht and Hugo Mann of Germany, have gone into the U.S., a move which once might have been regarded as taking coals to Newcastle.

In the early 1960s, when self service was just beginning to catch on as a method of selling in Europe, the traffic of retailing ideas across the Atlantic tended to be one way—eastwards. European retailers went to America for inspiration. They came back with ideas like the shopping centre, which they then tailored to their own needs.

To-day the traffic is if any, going the other way in terms of ideas for new kinds of shops. The Americans still lead in some areas. There are few European department stores to rival the best in America, for example, but it has been the Europeans who have developed hypermarkets and the new kinds

of limited range discount stores. Some of these ideas may not suit the American market, given the very different structure of the country, but some U.S. retailers would admit now to being influenced by European developments.

It is in terms of new systems that America is now the source of most ideas for European retailers. Though fully computerised checkouts are still a rarity in the U.S., the Americans are further ahead than Europe in the introduction of standard product numbering. The idea of electronic funds transfer systems is also more advanced, though recent research in America has suggested that this may not bring all the advantages once hoped for.

## Unlikely

Given the rising bill for physical distribution throughout the Western world and the consequent need to reduce the costs involved in physically handling products, it may well be that the greatest change in retailing over the next few years will be on this kind of behind-the-counter development rather than in the developments of completely new kinds of shops. Certainly it seems unlikely that the shops and retailing will change as dramatically over the next ten years as it has over the past ten.

Even so it is unlikely that any fully new concept in one country will be able to keep the idea from spreading to others. As James Jefferys, Secretary General of the Paris-based International Association of Department Stores, says: "Retailing is a business where monkey see what monkey do."

Almost by definition there are

very few real trade secrets in retailing. Companies may not be prepared to reveal the most intimate details about their operations, like their profit mix, but if they hit on an idea which is good enough to attract customers it is difficult to keep it a secret from other retailers.

The Western world is not of course a totally homogeneous market so far as shopping is concerned. There are still marked differences between countries and relatively few truly international retail groups. The independents, for example, have held on far longer in France than in, say, Britain, while even within Europe the share of market taken by the Co-op, probably the world's largest retail organisation, goes from under 2 per cent in the Netherlands to a mighty 17.2 per cent in Sweden. Mail order barely exists as a method of selling in some countries but is very important in Britain and Germany.

Even inside countries there are marked differences between regions while, as the success of such very different operations as Kwiksave and Marks and Spencer shows, there is no single route to success. Despite the move towards greater concentration, the shopper still demands variety and choice.

In many countries that choice looks like being provided by fewer groups in the future. Consumers may bemoan the demise of the small shop, which in many countries is what gives retailing its character and colour, but unless they vote with their feet and use those stores, the trend towards greater concentration is likely to continue. The only thing likely to stop it is further government intervention.

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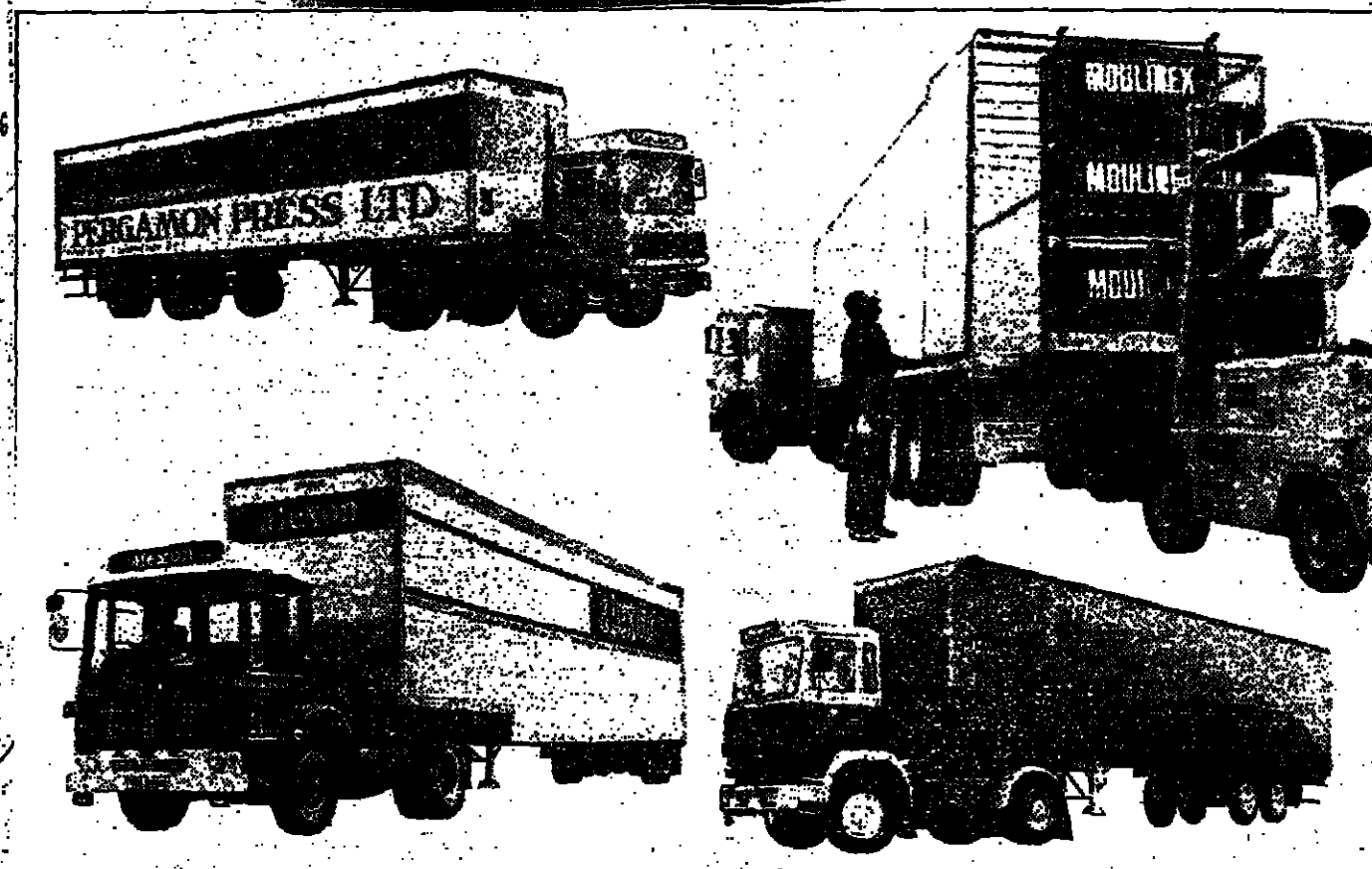
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## INTERNATIONAL RETAILING II

## Consumer spending under restraint

THE MAIN constraint on the growth of the retail business throughout the industrialised world in the past few years has been the slow expansion of output and living standards. And the prospects for the next year to 18 months are hardly any brighter than in the recent past.

This is in marked contrast to the experience up to the mid-1970s. Consumers' expenditure had increased at an average annual rate of 41 per cent in real terms between 1964 and 1974 in the main industrialised countries.

Retail sales are traditionally more volatile than consumer spending as a whole which also includes more stable items such as expenditure on housing, light and heating. In the early 1970s spending in shops grew rapidly in many countries with increases in the volume of sales of between 10 and 45 per cent in the seven leading industrial countries between 1970 and 1973, according to figures compiled by the Organisation for Economic Co-operation and Development. (These countries are the U.S., Canada, West Germany, France, Italy, the U.K. and Japan.)

## Sales

In Japan, for example, the volume of retail sales by the late summer of 1973 was more than two-fifths higher than at the start of the decade. There was a rise in spending of about a third in Italy by the end of the year after a particularly sharp rise during the course of 1973.

In West Germany the rise in the volume of sales was 15 per cent by the beginning of the year, since the general upturn petered out sooner than elsewhere a sharp decline was clearly apparent by the autumn of 1973. In the U.K. the sales gain for a short-time was nearly 15 per cent in the spring of 1973 but the average level of sales in the year was just over a tenth higher than in 1970 in real terms.

In the U.S., retail sales volume was for a couple of months about 18 per cent higher than in 1970. There was a similar gain at one stage in Canada, though spending there was strengthening towards the end of 1973.

In general, however, consumer spending started to be squeezed from the end of 1973 onwards as living standards came under pressure after the oil price explosion of 1973-74. The subsequent recession both increased unemployment and held back the growth of real incomes in many countries as the terms of trade were adjusted between the industrialised oil-consuming

countries and the oil producers. However, as OECD figures show, real personal disposable incomes, the best guide to living standards, still grew in the seven leading industrialised countries during 1974 and 1975. Real disposable incomes increased by 0.7 per cent in the seven main countries in 1974, with declines in the U.S. and Italy, but rises elsewhere. In 1975, real incomes rose by 2.6 per cent, though only as a result of tax cuts, and the U.K. was the only country to report a decline.

The impact of these movements in living standards was, however, partially offset by changes in the proportion of income saved. This meant that the growth of private consumption was different from what might have been expected. An OECD analysis last year pointed out that "prior to the early 1970s the general trend in all major countries was for disposable incomes to grow more rapidly than private consumption and for savings ratios to rise. Savings ratios, however, have varied cyclically round this trend, growing more slowly or falling in the downswing and rising in the upswing, thus exerting a stabilising influence on demand. But savings ratios rose sharply in the 1974-75 recession."

This was particularly marked in countries such as Italy and the U.K., with the highest rate of price inflation—a possible explanation for the rise—though an increase also occurred in West Germany. The result was that an overall rise in living standards of 0.7 per cent in 1974 in the seven countries was limited to an increase of 0.5 per cent in personal consumption and there was a similar impact in 1975.

In the upswing of the recovery, which started in most of the leading economies from the autumn of 1975 onwards, savings ratios declined—and quite sharply in the case of the U.S., West Germany, France, the growth of personal consumption outpaced the rise in real incomes by rates of 4.9 and 3.3 per cent, respectively in the seven major industrial countries in 1976.

The general recovery tended to slacken from the first quarter of 1977 onwards with investment still relatively sluggish in many countries. There was a marked reluctance, by many governments, notably West Germany and Japan, to embark on major programmes of expansion for fear of the possible inflationary consequences, while other countries, such as Italy and the U.K., were engaged on stabilisation policies intended to remove current account deficits.

The result was a slower growth both in total output and in consumer spending in 1977, than in the previous year. This was reflected in consumer confidence surveys and in a general weakening in spending on consumer durables. Real disposable income rose by an estimated 2.9 per cent in the seven leading countries, with the only decline in the U.K., wear off, some deceleration and there was a 3.5 per cent rise in real consumer spending.

But, even though there had been a recovery in consumer spending in most major countries in 1976 and 1977 the level of retail sales was often only slightly higher than at the boom period of 1973. This was shown in comparisons with the start of the decade; the volume of spending in Japan last year was at best only 30 per cent higher than in 1970, compared with a peak gain of over 40 per cent in 1973.

## REAL U.K. PRIVATE CONSUMPTION

(1976-78: per cent change on year)

	Real disposable income			Impact of changes in savings ratio on real private consumption			Real private consumption		
	1976	1977	1978	1976	1977	1978	1976	1977	1978
U.S.	3.9	3.9	4.7	2.1	0.6	-1.3	6.0	4.5	3.4
Japan	3.7	4.0	3.7	0.7	-0.2	0.5	4.4	3.3	4.2
West Germany	1.8	2.2	3.8	1.8	0.7	-0.5	3.6	2.9	3.3
France	3.2	1.9	2.9	1.7	0.8	0.2	4.9	2.7	3.1
U.K.	-0.4	-1.8	2.2	0.8	1.2	0.4	0.4	-0.6	2.7
Canada	5.6	1.9	3.1	0.5	1.0	0.4	6.1	2.9	2.5
Italy	2.5	0.6	1.7	0.7	0.9	-0.4	3.2	1.5	1.3
Major seven countries	3.3	2.9	3.9	1.6	0.6	-0.5	4.9	3.5	3.4

Source: Organisation for Economic Co-operation and Development.

## Mothercare goes up to 10 countries.

There are now 326 stores in ten countries. Mothercare-by-Post, through its catalogue, serves the mother-to-be and her baby in a further 130 markets.

**Mothercare®**

Everything for the mother-to-be and her baby... and children up to 10.



## Where is the biggest shop in Europe?

It's all over the place! There are 25,000 Spar shops in Europe, and that's larger than any other single grocery chain. They all offer a consistently high standard of service, together with the long-established range of high quality own Brand products. In total, Spar enjoys a turnover of £4000 million in Europe alone.

Here in the U.K., Spar is the largest and most successful voluntary group, with 4,000 stores making up their Nationwide network.

Which all adds up to the biggest shop in Europe—exactly where you want it.



## Overseas ventures by U.K. retailers

THE ROAD to retailing fortune overseas has proved exceptionally hard for store companies in this country. There are the slow consolidation rather than exceptions—Great Universal entrepreneurial dash. And its Stores has managed to build its major areas of activity have a non-U.K. profits up to around a fifth of total earnings while at Courts (Furnishers) the ratio is closer to two-fifths—but these afford only small relief from the sad fact that most retailers brave enough to step outside the British Isles have found the going very flinty indeed.

One graphic reflection of this pattern of trading is to be found in the fact that so many major retailers in the non-foods sector are wholly U.K.-orientated—or at least effectively so—with overseas operations so modest as to be almost invisible in a group context. Fast failures have plainly had an adverse impact on Boardroom confidence when it comes to expanding overseas. But it is equally clear that any British shopkeeper starting to sell direct to the foreigner needs to learn a number of new tricks.

Retailing tends to have a strong national bias, with local tastes still a remarkably crucial factor in determining levels of demand despite the increasing sameness of the developed world. Retailers have to get to know their market at the ground level: the vision of U.K.-style retail chains expanding rapidly across Europe under the aegis of London has finally faded.

As a result British toeholds in retailing in overseas areas other than the developed Commonwealth economies are now much less ambitious and geared noticeably to local selling techniques. In France even Marks and Spencer has had to deploy changing rooms in its stores in contrast to its more utilitarian if price-conscious practices in this country.

In the year ended March 1977, Great Universal Stores made something like £22m. before tax from its overseas operations, turned in losses of around

£500,000 in 1976-77. Having lost the red until at least 1976-77, the group's approach to its foreign retailing has always been a matter of stealth and the slow consolidation rather than exceptions—Great Universal entrepreneurial dash. And its Stores has managed to build its major areas of activity have a non-U.K. profits up to around a fifth of total earnings while at Courts (Furnishers) the ratio is closer to two-fifths—but these afford only small relief from the sad fact that most retailers brave enough to step outside the British Isles have found the going very flinty indeed.

## Force

Elsewhere the driving force behind GUS' overseas selling is South Africa where the group owns some 250 stores. These operate under a variety of names—Barnes Furnishers, Excelsior, Meubels, Lewis Stores—and are mostly involved in furniture and general domestic appliances. There are 110 stores in Canada and the Australian chain runs to about 65 outlets. Once again the accent is furniture and appliances with the Canadian chain operating under names like Adams Furniture and Woodhouse.

Marks and Spencer's overseas turnover accounted for something like 1½ per cent of the group total in the year ended March, 1977, the last published figures. The overseas divisions centre on Canada—where the company has a 58.5 per cent shareholding in Peoples Department Stores—and Europe which

turned in losses of around £500,000 in 1976-77. Having lost the red until at least 1976-77, the group's approach to its foreign retailing has always been a matter of stealth and the slow consolidation rather than exceptions—Great Universal entrepreneurial dash. And its Stores has managed to build its major areas of activity have a non-U.K. profits up to around a fifth of total earnings while at Courts (Furnishers) the ratio is closer to two-fifths—but these afford only small relief from the sad fact that most retailers brave enough to step outside the British Isles have found the going very flinty indeed.

There are four M and S stores on the Continent. The group started in Paris with an opening in February 1975 which was followed almost immediately by a store in Brussels. These two outlets are now making a profit, but Marks has been less fortunate with its operations in Lyon (opened in the autumn of 1975) which continues to lose money.

As a result of the Lyon outlet and the inevitable start-up costs accruing at the second Paris store, which came on stream last autumn, M and S is likely next month to unveil yet another unfavourable trading picture for its European operations. The company has not found it easy to transplant to France what in this country amounts to a very impressive retailing success story indeed. The tide is turning. But M and S has clearly had to lengthen part of its views on the amount of time needed for the Continental retail operations to move from tick-over situations to relative money spinners.

One of the more striking experiments in selling overseas is coming from the mother-to-be and baby care specialists: Mothercare which moved into the American market two summers ago. At present the group's operations in the U.S. are losing money and are expected to continue to stay in

the biggest economy in the world. The management plans to concentrate initially on the North East corridor of the U.S. where the company runs some 145 outlets. Mothercare is also pressing ahead with plans to operate on a mail order basis.

In Europe the company is represented in Austria, Sweden, Denmark, Switzerland and Germany. For the first six months of the year just ended (March 31) profits from the Lyon operations were showing a very sharp increase, leading observers to think in terms of a European profits contribution of around a tenth for 1977-78 as a whole. In the preceding year Mothercare made a group profit of £11.95m. before tax on sales of £81m.

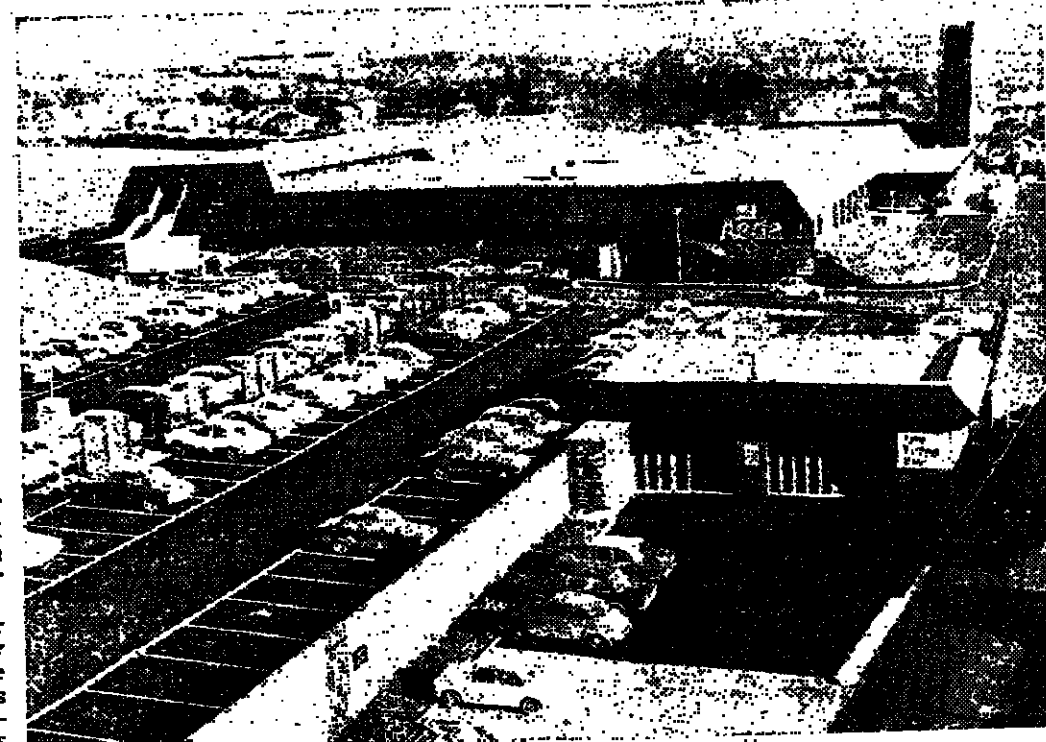
Elsewhere the retailing industry's connections with selling overseas remain fragmented and difficult to pinpoint. The problems of the Burton Group in France are extensively documented, with the company now running into its seventh year of consecutive losses from that country. Drapery Stores pulled out of the few Richard Shops that it had in North America a year or so ago. Boots has some modest operations in Canada.

In northern Europe, retailing interests are operated by Austin Reed (in Holland and Sweden) while shoemaker Church has some outlets in Belgium. Both Audiotronics and Bixons have a stake in Europe.

Jeffrey Brown



# British efficiency scores top marks



The Asda store in Plymouth.

## U.K. RETAIL SALES (per cent. shares)

	1962	1971	1976
<b>Multiples</b>	<b>24.0</b>	<b>29.3</b>	<b>40.6</b>
Department stores	4.5	4.5	5.0
Variety stores	4.3	5.8	5.0
Consumer co-operatives	10.2	7.1	7.3
Mail order	2.5	3.8	4.8
Affiliated independent multiples	6.9	10.0	*17.3
Independent retailers	47.6	39.5	20.0

\* Estimate by Management Horizons.

Source: National Census, Distributive Trades EDC (U.K.), Retail Trade Europe and Management Horizons (U.K.).

BRITAIN MAY not have had much to boast about over the past five years but there are those—and not all of them are over-zealous patriots—who believe that the country has much to be proud of in its retail industry.

Leading British retailers like Marks and Spencer and Mothercare score top marks for efficiency on any international league table. And while British shoppers may sometimes look longingly at the choice of shops in the Continent, the British distribution system has much to be said in its favour in pure economic terms.

The big multiple groups take a bigger share of the total retail cake in Britain than in any other developed country.

They account in total for over 40 per cent. of British retail sales and the signs are that this share will continue to increase.

Distribution companies—both at the wholesale and the retail level—tend to be larger than elsewhere in Europe and have more experience in large-scale mass distribution of consumer goods than their European counterparts.

Moreover, as the National Economic Development Council pointed out in its report in 1973, there is some evidence that the largest British retailers have been more profitable than those on the Continent. This conclusion, probably had more to do with the larger scale of distribution organisations in Britain than with any difference in gross margins.

Since NEDC published its report, British retailers, along with those throughout the developed world, have of course seen through the trauma of a recession. The hard times hit Britain relatively late in terms of consumer demand but when they came they took their toll among retailers.

Following a rapid rise in sales in the early 1970s, the trade has had to deal with three years in which consumer expenditure

has fallen in real terms. Spending in 1977 was the lowest for five years and though in recent months retail sales have begun to pick up again they are still running almost 4 per cent. below their 1973 level.

Although the recession resulted in few major retail group failures—apart from in the trouble-torn menswear sector—it took its toll of profits.

The cutback in spending, coupled with the impact of Government price controls in the year of the recession, meant that profits fell in real terms.

The effect of the recession was to accelerate many of the trends which had become evident in the boom days. Independent traders came under even more pressure from the multiples and the rate of closure is generally assumed to have increased. According to one estimate, the number of shops in Britain fell by a further 8.5 per cent. between 1971, the date of the last official census, and 1975.

Some of these closures were made by big groups like the Co-op, International Stores and Allied Suppliers, but many were privately run shops. The like limited range discount dependent shops has more than

halved since 1962 and now stands at around 20 per cent. During the same period, affiliated independents, like Spar and VG, have increased their share of the cake from 6.9 per cent. to over 15 per cent., though they have not made the inroads into non-food areas that they have in some other European countries.

## Reversed

Since 1962 department stores have marginally increased their share to 5 per cent., as have the variety stores. The Co-op, which remains Britain's biggest single retailer, seems to have reversed the decline in its fortunes which resulted in its share falling from over 10 per cent. in 1962 to 7.1 per cent. in 1971. In 1976 the figure recovered to 7.3 per cent.

The decline in consumer spending, coupled with the unprecedented increase in stores costs, forced retailers to make economies and start exploring new ways of trading. Ideas which until three years ago had only been exploited in the cost-conscious North of England, sales to tourists. Those groups lucky enough to have stores in Central London were able

partly to offset the lower volume in their provincial stores by notching up year-on-year increases of 60 per cent. or more in London.

The ability to offset lower sales in one part of the country in this way could of course be said to be a benefit of Britain's concentrated distribution set-up. The large national groups are able to spread both the capital costs and the effects of local competition over a wider base than smaller companies with all their eggs in one regional basket.

Supporters of the theory that Britain has a more efficient distribution system than most of its industrial competitors quote the performance of British retailers over the past few lean years as an example of this. They point to the fact that, outside the menswear business and the fairytale world of Biba, there have been no major casualties in British retailing, and that while profits have certainly fallen in real terms, the decline has not been as sharp as in some other countries.

To some extent, this may be a reflection of the way the British groups are financed. On the Continent many of the big chains are still in private hands and rely heavily on bank finance whereas—with the major exception of Littlewoods—the big British retailers are publicly quoted companies and so less vulnerable to sudden surges in interest rates.

British retailers had already cut back on labour before the recession began to bite, partly as a result of the switch to Selective Employment Tax in 1966, so there was possibly less over-staffing than in some other countries. Certainly there were big redundancies—as in the case of the Debenhams department store group—but not perhaps of the level which might have been expected at a time of such depressed sales.

Moreover, while many people in the business decry the way

## RETAIL OUTLETS AND SALES AREAS IN W. EUROPE 1975

	Number of retail outlets	Total selling area (m. square feet)	Average size of outlet (square feet)	Outlets per 1,000 population	Sales area per 1,000 population (square feet)
Belgium	150,000	73.9	492	15.24	7,508
Denmark	57,900	31.3	539	11.39	6,136
France	530,000	296.0	558	10.01	5,590
Germany	550,000	391.0	711	8.88	6,309
Ireland	28,000	13.2	471	8.84	4,166
Italy	960,000	349.0	364	16.96	6,166
Netherlands	146,000	85.6	586	10.61	6,220
U.K.	527,000	333.0	632	9.41	6,000
Austria	42,300	—	—	5.60	—
Norway	33,200	—	—	8.25	—
Spain	391,800	—	—	10.94	—
Sweden	33,300	—	—	4.05	—
Switzerland	45,000	—	—	6.98	—

Source: National Retail Directories, Census and Management Horizons (U.K.).

in which Britain has fallen behind Europe and America in terms of the development of big new shopping centres, this tardiness has meant that Britain has not been faced with the kind of costly over-capacity shops.

The immediate outlook for British retailing is far brighter now than it has been for some time. Retail sales are expected to show a real increase this year

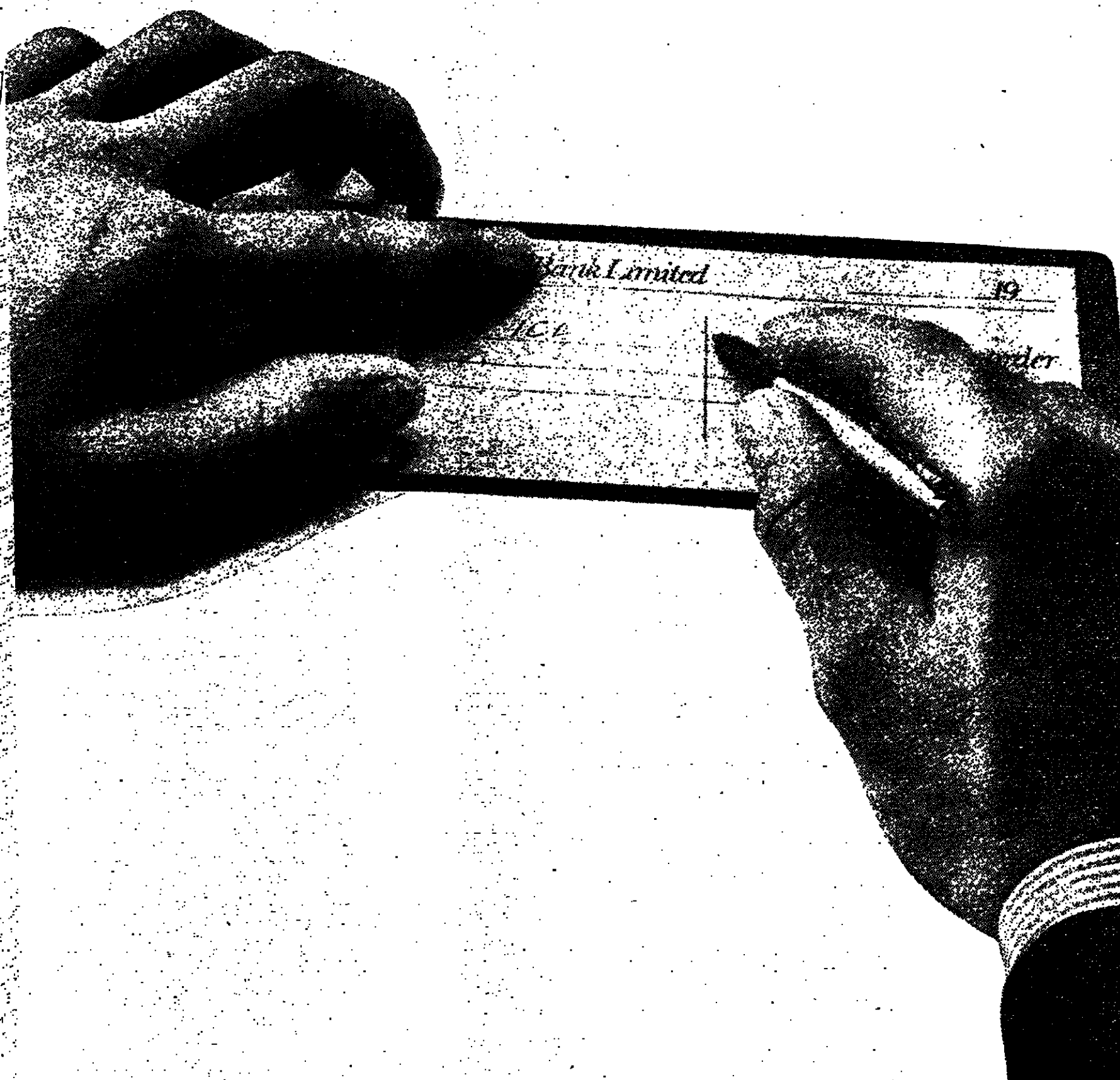
not fulfil the needs of the modern, car-borne shoppers, and which are very expensive to run. And if Britain has not created over-capacity by building new shopping centres, it still probably has too many shops.

—the first signs of this have already emerged—and retailers' costs should lag behind the rate of cash sales growth. Most City pundits are predicting an increase in profits except in the food sector, where the price war shows no sign of an immediate end. In the grocery business at least things look like being tough for some time to come.

Elinor Goodman

# When Marks & Spencer went shopping for computer quality they bought ICL 2900 series

ures by  
lers



Marks & Spencer recently went shopping for a large computer system capable of keeping pace with their expansion. The new system had a lot to live up to: it had to cater for the needs of their 253 stores at home and the 40 countries to which they export, amounting to a turnover of over £1,000 million. The system had to match the Company's reputation for high quality and good service.

Marks & Spencer finally chose the ICL 2970 computer system which provided the expertise and equipment they were looking for. The 2970 has a prodigious capacity for hard work. All future developments will be allocated to the new machine and existing services gradually transferred.

The new computer will be used to improve the efficiency of the Marks & Spencer operation in the interests of service to their customers.

Altogether a good day's shopping for Marks & Spencer and a great testimonial for the ICL 2900 series.

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# The changing face of the housewife



Family shopping is no longer the preserve of the housewife.

The latest MGN Survey on husbands' influence on shopping for food\* indicates that four out of five British husbands under 65 now get involved with shopping, either doing it on their own, or with their wives.

In 1973 only three out of five husbands were wheeling that supermarket trolley.

It appears that the idea of shopping as women's work needs some modification.

Perhaps we ought to coin the term 'houseperson' to represent the individual who does the family shopping.

Otherwise we would be in danger of ignoring about 1.9 million men.

And when one adds to those 1.9 million the three-quarters of all husbands who go shopping with their wives, and do influence what is bought, it adds up to a new ball game — and that, surely, should prompt new creative and media thinking.

Perhaps advertisements should no longer be aimed solely at the housewife. After all, her husband might feel left out.

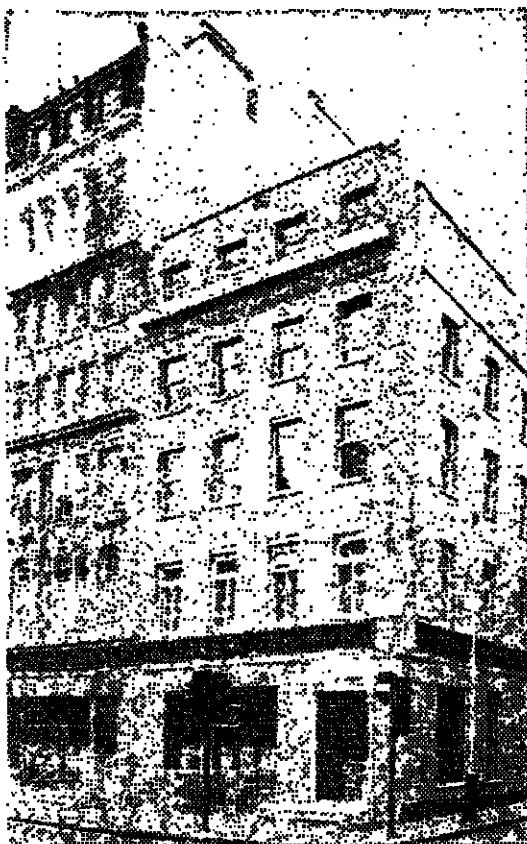
And that could lead to you being left on the shelf.

\*Husbands and Wives and Shopping for Food. By Brian Allt.

## MIRROR GROUP NEWSPAPERS

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The name Healey & Baker has grown synonymous with all the varied facets that reflect the varied and fast, changing world of retail property.

A name now almost as familiar in the High Streets

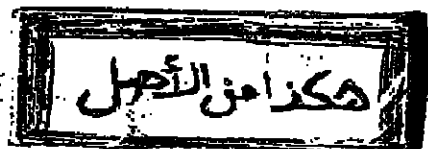
of Great Britain as the household names it continues to advise.

And a name too that has become familiar in such major centres overseas as Brussels, Paris, Amsterdam and Jersey.

So if you are thinking of retailing either in Great Britain or Europe

Come shopping at Healey & Baker

**HB Healey & Baker**  
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## INTERNATIONAL RETAILING IV

On these two pages Elinor Goodman and John Wyles review developments in the U.S., Japan and some of the leading countries in Europe. There is a common thread, but also variations which in most instances are dictated by the differences in the individual structure of society.

# Some major markets

## Japan

THE SHOPPING revolution in which swept Europe and North America in the 1960s is only a few days now beginning to reach Japan, and it is still by no means certain that it will manifest itself there in exactly the same way it has in other parts of the developed world.

As the Nikko Research Centre recently pointed out in a report on superstores, the labyrinth of the Japanese distribution system has a long history and its problems cannot be solved overnight. Japan's new industries, like cars and electrical appliances, have developed their own streamlined distribution systems but in other sectors, notably food and textiles, the lines of distribution are still very complicated.

In these sectors wholesalers are still extremely important. They themselves have very varied functions while beneath them operates a second tier of sub-contractors. In many cases the goods reach the shops only after having passed through the hands of three separate wholesalers. The length of this chain is demonstrated by the fact that the total volume of wholesalers is four times that of the shops.

The strength of the wholesale sector is partly a reflection of the way the retail market is organised (though it is difficult to say which is the chicken and which the egg). The small privately run shop is still a major force in Japanese retailing. The average Japanese shop still only has an average of 70 customers as against 100 to 140 in most Western countries.

Small neighbourhood shops are still very important in the food sector. The Japanese housewife still seems to buy

perishable food at local shops in amounts only big enough to last a few days. Each residential area has its cluster of local shops, many of them family-run, and most of them determined to stay in business. According to the Nikko Research Centre, these shops are more interested in the stability of their income than in increasing profits. Consequently, when large superstores attempt to make inroads into an area served by the small retailers, the latter's resistance is strong. This in turn has led the government to enact legislation protecting the small shopkeeper.

Any retailer wanting to build a large store has to produce proposals which are ultimately scrutinised by all the local traders likely to be affected by the opening. The opinions of local department stores and small retailers are often respected and as a result the proposed selling space can be reduced by as much as 30 per cent, or even 50.

## Similar

The response of the superstore operators has been similar to that of some companies faced with similar opposition in Britain. To-day superstores are offering to help small shopkeepers by assisting in the development of shopping areas as well as paying part of the cost of providing public utility facilities.

But despite the continued importance of the small shop in Japan, it is the supermarkets which are the big growth sector. According to figures



The Datsun/Nissan Motor group's Hommoku wharf.

from Euromonitor, the super-supermarkets continued to increase. As in Germany, some share of the market from 8.4 per cent in 1972 to just under 10 per cent a quarter last year.

The department stores, long an important feature of Japanese retailing and for many years the major exponents of general merchandise selling, seem to have withstood this challenge well and actually increased their share of the market in the five years to 1977. But the 60s rather than the 70s were the boom period for Japanese department stores. Last year, for example, department store sales were basically flat in real terms while those of

heavily in new shops over the past few years and have raised money in Europe to finance this expansion. But despite all the changes it looks like being some time before all the trends which have been seen in the West manifest themselves in Japan. Certainly many of the seeds are there — and in the case of superstores and some uniquely Japanese forms of discounting — far more than seeds. But though the wholesalers have to adapt their operations to new trading conditions, they are unlikely to lie down and accept the less significant role their counterparts have in many European countries without a fight.

## West Germany

A FEW YEARS ago a number of British food retailers started taking discreet trips to Germany to see what was going on there. The particular object of their curiosity was the rapidly expanding chain of discount stores trading under the name of Aldi. The group, started in 1948 by Karl and Theo Albrecht, was by the mid-70s vying with Tengelmann-Kaiser for the title of Germany's largest food retailer. But unlike most of Europe's other developing food chains, its stores were not large and it was this which appealed to British retailers looking for some way of keeping their small units trading.

The British liked what they saw and began to consider how they could develop the concept for their home market. The results were the new chains of limited range discount stores now being run by groups like Fine Fare as a means of increasing sales through small stores which probably would otherwise have had to be closed. These new chains, with their emphasis on keeping costs to the minimum, also owed much to the inspiration of the successful British discount chain, Kwik-Save, but the companies behind them preferred to acknowledge their German parentage.

It is not only in this particular form of discount trading that Germany has gone out on its own. An unusual feature of the German market is the Verbrauchermärkte or consumer market — the mini hypermarkets which range in size from 1,000 sq. metres (about the cut-off point for an Aldi) to 2,500 sq. metres, and offer discount prices on a wide range of both groceries and non-foods.

According to figures produced last year by MPC, Germany has more hypermarkets than any other European country. This on its own is not surprising in view of the fact that Germany stores have grown by leaps and



The Hertie shopping centre in Frankfurt.

is the biggest market in Europe for retail sales. But for a long time, the German market has been a curious blend of the familiar and the unusual in terms of retail trends. According to Euromonitor, the German retail scene is characterised by a high degree of efficiency and organisation. Yet it is also one of the countries where retailers have suffered most markedly from the effects of the recession.

But despite the development of these new forms of retailing, some of the established features of German retailing have proved to be surprisingly resilient. Despite their problems, German department stores still account for around 40 per cent of total retail sales — a higher figure than in most other countries. The sales of the big department store groups like Karstadt and Kaufhof dwarf those of retailers in other countries. The companies have not sat back and watched the new kinds of shops eat into their traditional territory but diversified into these areas themselves — albeit not always very profitably.

It has been the department store sector and the mail order of a shortages of good sites

For the moment, however, new development seems to have slowed down. Germany, like Karstadt are continuing to open new stores but it is becoming more difficult to start really big new developments — partly because of new planning regulations and partly because of a shortages of good sites.

## RETAIL TRADE BY FORM OF ORGANISATION

(Per cent. share)

	BELGIUM			IRELAND			ITALY			NETHERLANDS		
	1962	1971	1976	1962	1971	1976	1962	1971	1976	1962	1971	1976
Multiples	4.0	9.9	14.3	6.0	10.2	14.6	1.3	3.0	5.5	17.6	26.3	28.3
Department stores	3.9	3.9	9.0	5.5	6.6	6.5	0.4	0.5	4.6	3.3	4.3	5.5
Variety stores	4.2	4.3	9.0	1.0	1.7	2.8	1.7	3.4	4.6	1.0	1.5	1.5
Consumer co-operatives	3.0	2.4	1.3	2.0	7.0	7.5	1.3	1.7	2.5	1.7	1.6	1.2
Mail order	0.5	0.5	1.2	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.4	0.9
Affiliated independent multiples	6.8	7.0	7.3	5.3	6.5	7.0	2.0	5.6	8.5	20.0	24.7	31.4
Independent retailers	77.6	71.7	65.9	75.3	69.0	61.6	93.2	85.6	78.6	58.8	46.2	32.3

\* Estimate by Management Horizons.

Source: National Census, Distributive Trades EDC (U.K.), Retail Trade Europe and Management Horizons (U.K.).



## INTERNATIONAL RETAILING V

## United States



Sergels Torg, the square in the modern centre of Stockholm.

## Scandinavia

AS A highly urbanised country, Sweden has often led the way in the development of new forms of retailing. Many of the changes which have taken place in the structure of Swedish retailing have emerged later in other countries.

The first hypermarket was built in Sweden as long ago as 1962, while self-service has made bigger inroads into Swedish retailing than in practically any other country even furniture is sold on a self service basis.

At the same time new forms of small convenience stores have sprung up which sell a wide range of goods but stock very few things in depth. Another novel development has been the opening of outlets by manufacturers and wholesalers to sell their own specialist products. They offer single-line commodities at heavily cut prices.

Many of these ideas have been developed by retailers in other countries. But the Swedes themselves have taken some abroad. The discount furniture chain Ikea, for example, has shops in five European countries as well as in Canada, while Hennes and Mauritz, the largest specialist retailer in Sweden, has already expanded into Norway and Denmark and is now beginning

to open its first shops in Britain.

According to Euromonitor's publication Retail Trade International, the end of retail price maintenance in the 1960s, coupled with the urban nature of the country, made Sweden the perfect breeding ground for the large organised retailer. Given the amount of consumer protection legislation in Sweden, not all its traders would agree this view, but the end of RKM was certainly followed by the emergence of a few powerful retail groups and an acceleration in shop closures.

As in other European countries, the closures were particularly marked in the food trade as the small independent traders went out of business. The number of food shops was halved between 1963 and 1975—a trend which as it continues has begun to make the Government concerned about how to provide shopping facilities in rural communities.

One of the novel aspects of the Swedish retail scene is the development of "co-operation" in the widest sense of the word. This has manifested itself in two ways. At one end of the spectrum retailers have co-operated among themselves to form voluntary groups which now account for about a quarter

of all retail sales—a far higher penetration than in most other countries. Most are retail-owned rather than, as in Britain, operated by wholesalers.

At the other end are the traditional consumer-owned co-operative societies. Though their life has not been made easy by the development of privately run multiple chains, they have managed to hold on to a share of the market which is the envy of Co-ops in other countries.

## Claimed

In 1976 the Swedish co-operative movement claimed to have taken 17.5 per cent of total sales and it announced that it was hoping to increase this to 19.1 per cent by 1980. As well as running department stores like the Domus chain, the Swedish movement operates supermarkets and has developed some ideas which could well be copied by co-operative societies in other countries. Recently, for example, about 20 of the 190-odd societies linked to Konsum-Kooperativa-Förbundet, announced that they were to start issuing membership cards to their members. Card holders will be offered special discount prices on selected lines.

Elsewhere in Scandinavia

there has been a similar move towards greater concentration in retailing, though in neighbouring Denmark the move came relatively late. While independent retailers in other countries faced growing competition from larger companies, the small trader in Denmark remained protected by Government legislation. In 1970, however, the law which effectively limited the number of shops a retailer could operate was repealed, and since then there have been major changes in the retail structure.

Predictably, store closures have accelerated and multiple groups like Irma have grown up. As in Norway, where in the opinion of some, the voluntary group movement is the most effective in Europe, independent retailers have formed their own associations.

But if Scandinavia has an efficient retailing structure, it has not escaped the effects of the recession—though in the case of Denmark the brakes did not come on until the end of last year. In the last quarter of 1977 sales in both Denmark and Sweden were very depressed and retailers were experiencing much the same problems their counterparts in other parts of Europe had suffered in the previous two years.

THE U.S. retailing scene has a taller. Until about ten years ago, Sears' reputation rested on what interest is in the eye of the beholder. The casual shopper can find an impressive variety of price and product and stand-ards of display in big city department stores which testify to a great deal of imagination and thought. The investor will find a range of stocks offering him discount houses—with K Mart both yield and growth while the industrial analyst can see a business sector in transition where managerial emphasis is weaning towards growth by acquisition rather than the development of original outlets.

Historically, U.S. retailing appears to have exhausted most of the rich opportunities whose net sales in 1977 were \$17.2bn., decided early last year the American to embark on an ambitious price-cutting programme to lure customers back from K Mart. Profit margins were reduced and it dominated the suburban shopping centres which characterise the American consumer's way of life. Competition for business became intense, and in recent years and recession eroding the company's sales actually rose profit margins have seen the 13 per cent but earnings fell 20 per cent from the corresponding period the year before. This Robert Hall, Arlens, Topps and White Front.

During the last few months the fight for market shares between the discount houses, the improvement items were "too chain stores and the department stores" has intensified. Most notable has been the aggressive pricing policy adopted by Sears Roebuck, the world's largest re-

count houses since consumer spending, the wheel which keeps is out of the basement and on to the main floor."

Mr. Sosnick believes that catalogue chains like Sears and Penney will have considerable resources to bring to bear in their attack on fashion sales. Quite apart from the catalogues themselves, they enjoy the advantages of shopping centre locations, high volume purchasing and the ability to advertise nationally on TV and in magazines.

Mr. Sosnick is not alone in believing that conventional department stores face a difficult future and that some may not be equal to the challenge. Professor Walter Salomon of the Harvard Business School argues that these stores have lost many of the advantages they used to enjoy. The development of shopping malls means that they are no longer the only place for "one stop" shopping and the widespread availability of credit cards means that they are not the only source of credit for the shopper.

Professor Salomon believes that to counter the loss of market share department stores will expand into "ego"-related businesses such as speciality retailing. Some of this expansion will probably occur through acquisition, and he cites Dayton Hudson as a company moving in this direction through its purchase of bookselling and jewellery operations.

John Wyles

## RETAIL TRADE BY FORM OF ORGANISATION

(Per cent. shares)

	Denmark		West Germany		France		Sweden	
	1962	1971	1976	1962	1971	1976	1962	1971
Multiples	2.1	6.0	10.0	9.1	14.6	19.0	8.6	15.2
Department Stores	2.5	3.6	6.0	6.5	8.8	10.5	3.3	4.2
Variety Stores	—	2.0	—	1.2	1.5	—	4.2	5.3
Consumer Co-operatives	10.3	11.4	8.5	3.1	3.0	3.1	2.6	2.9
Mall Order	0.1	0.2	0.2	3.5	4.7	5.0	0.7	1.1
Affiliated Independent Multiples	13.5	16.7	20.0	34.5	39.6	40.7	11.6	15.6
Independent Retailers	69.5	60.1	55.3	42.1	27.8	21.7	69.0	55.7

Source: National Census, Distributive Trades EDC (U.K.), Retail Trade Europe and Management Horizons (U.K.).

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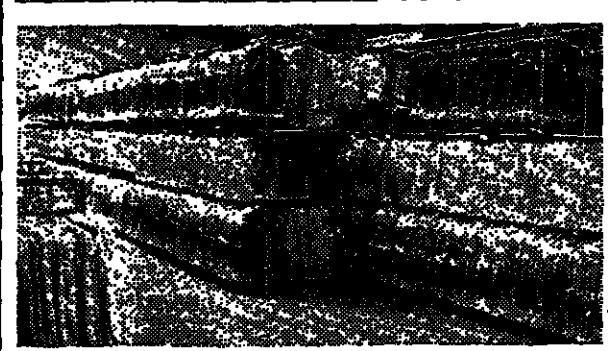
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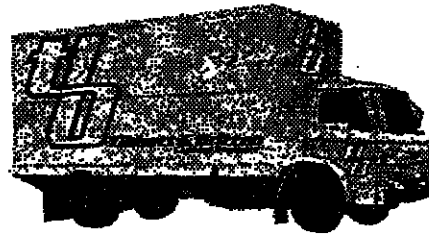
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## France

SHOPPING in France is like travelling in a time machine from one end of the 20th century to the other. At one end of the spectrum are the kind of shops which delight the foreign visitor—the local patisseries, overflowing with delicacies which look as if they have been hand-made to sabotage the waist-line or the boutiques where the level of personal service can be almost overpowering. At the other—sometimes within five minutes

walk of the small specialist shops—are examples of the kind of huge modern retailing development which are the pattern for the future and the envy of retailers throughout the world.

France is a land of paradoxes as far as retailing is concerned. For the past ten years or so the country has led the world in the development of new forms of shopping. The hypermarket concept may have originated in Scandinavia but

it is the French who are acknowledged leaders in the hypermarkets in France.

Normally situated outside towns, these monster stores are now estimated to account for around 10 per cent of total French retail sales. Their operators, like Carrefour, have exported the idea around the world and it is to France, rather than America, that those looking for inspiration about large-scale developments now turn.

Similarly, the French have developed the regional shopping centre concept further than most other countries. Paris is now surrounded—some would say strangled—by a ring of vast new covered shopping centres, like Parly 2 and Rosny 2, which cater primarily for the car-borne shopper and which in most cases have managed to create an attractive new shopping environment.

Alongside these new developments, however, the independent trader has managed to hold onto a bigger share of sales than in almost any other developed country. Partly because of the highly discriminating character of the French consumer and partly because of the political clout of the small shopkeeper, the independent sector still accounts for around 60 per cent of total sales.

According to figures produced by Euromonitor, this share has actually increased over the last five years despite the many closures in the food business. The regional retail structure has helped the small trader and hindered the multiple—though recently there have been signs of regional groups like Casino moving out of their traditional territories and into the rest of France.

The huge shopping developments opened over the last 10 years have of course taken business from some of the established operators. French magazines talk about the crisis in department stores which, like the variety chains, have been squeezed not only by the opening of hypermarkets selling a wide range of non-food items but also by the development of specialist discount chains.

Most of the department store groups have moved into hypermarket trading (Au Printemps, for example, is associated with Euromarche, the third largest hypermarket operator) as well as opening new stores in the regional shopping centres. But the expansion has not been without its problems. Au Printemps for example recently closed its department store in the Creteil centre.

Looking to the future, most French retailers seem to think that the country is beginning to reach saturation point as far as large-scale developments are concerned. The law in any case militates against such developments and even if the rate of closure among independents begins to pick up there still looks like being over-capacity in French retailing for some time to come.

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## INTERNATIONAL RETAILING VI

# Electronic systems for stock control

A MAJOR problem confronting retail management in Europe today, in the light of increased stockholding costs, is how to walk the tight-rope between keeping stocks at their lowest and most economic level and at the same time avoiding disastrous out-of-stock situations—the best way of sending customers to the rival supermarket round the corner.

The answer, of course, lies in improved management information systems, and particularly in capturing rapid up-to-date and detailed information on sales which can automatically and swiftly be related to stock replenishment. The application of electronic data processing to retailing, and more particularly

to the point of sale, has been one of the major management techniques in retailing in Europe over the past few years. And the use of technological devices such as scanners incorporating laser beams has been accelerated by the development of the bar-coding system, which contains information on the product's country of origin, the name of the manufacturer and the product line.

But when the system was introduced into the U.S. some two and a half years ago results were not particularly happy. American retail managements were more concerned with the reduction of labour costs than with stockholding costs, and conflict with labour unions over this

issue delayed development of the system. In addition, since bar-coding invariably means an absence of individual price-marking, American managements also found themselves up against the consumer lobby. As a result, as recently as the beginning of this year only some 200 of American supermarkets were using fully developed point of sale computer-linked systems.

## Language

Nevertheless, over the past few years the European Article Numbering Association has been set up essentially to offer a number system to the twelve European signatory countries which will provide a common

language so that the computers of grocery manufacturers and retailers can communicate. In January of this year the Article Numbering Association in this country—a body made up of retailers, manufacturers and wholesalers—announced the launch of the Article Number Bank, which allocates specific numbers to manufacturers' products.

In line with this system several of the major computer manufacturers have sold a number of sophisticated point-of-sale systems to retailers in Europe. Sweda and NCR are two of the leading companies in the field.

Sweda numbers among its customers two Carrefour hypermarkets in France and two in the U.K.; the Rinascente department store group in Italy; the supermarket group Albert Heijn in Holland; and the German cash and carry group

Radio. Sweda has also been active on the American front, selling systems to Bradlee's department store group in Massachusetts, Woodward's department stores in Vancouver, and installations in Mexico and Brazil.

NCR has been busy in Scandinavia; one of its latest contracts is with the department store group Magasin du Nord, which has six stores in Denmark. Over the next couple of years a total of 850 NCR 2151 POS terminals will be installed in the six stores, and each store will have its own NCR 735 mini-computer. Early last year the supermarket group Irma, the second largest retail company in Denmark, installed an NCR 255/726 computerised checkout system with laser beam scanners built into the checkouts. NCR has also supplied the Swiss department store group Jelmoli and the German store group Karstadt. The company also has a number of installations in Britain.

But there is growing scepticism about article numbering and particularly about its use

in relation to POS systems. Grocery suppliers respond to the euphoric talk about the benefits of "computers speaking to computers" with more than a touch of weary cynicism, suspecting (not without some justification) that this is yet another "spectacular development" in the food industry which would require from them a contribution to the costs while providing them with less benefits than the retailer.

At the Article Numbering Association conference in London in January major suppliers such as Birds Eye and Procter and Gamble made it clear, amid the surrounding proselytisation, that they were prepared to undertake bar-code printing only in conjunction with their normal packaging-design programme. That, they warned, would mean a time-lag of at least three years.

Some major retailers, too, although accepting the need for up-to-date sales information, view with alarm the high cost of electronic systems at point of sale, which can amount to about £3,000 per check-out. They are aware that source data can be captured in a number of different locations in the retail system, and not just at the point of sale.

Some retail companies—Sainsbury was one of the first—are installing general purpose data entry terminals which are one quarter the cost of a fully computerised system and can provide up to 90 per cent. of the information. Systems such as this still offer all the main computer-orientated facilities, such as wand reading of OCR (Optical Character Recognition) or magnetically encoded merchandise tags, transmission of data by telephone lines, and even automatic data polling by the computer of each shop location during the night. So the full advantage of a daily stock control system can be gained at considerably lower investment cost.

MSI Data Corporation is one



MSI portable data capture terminal.

of the principal manufacturers of portable data entry terminals, designed to be carried round a store to record sales, either keyed-in manually or through a wand scanner which reads a bar-code shelf label. The terminal is then coupled to an ordinary telephone and the information is automatically transmitted to a computer centre or warehouse. The system is capable of being used by small independent retailers if they are ordering principally from one supplier—as in the case of symbol groups.

## Command

MSI claims to command 80 per cent. of the portable data entry terminal market, with 63,000 terminals installed in 18 countries. Among European countries it has shelf-edge order entry systems in the Belgian superstore company Grand Bazar (part of GB-Inno-BM), in the French Co-ops of vice levels by 15 per cent. and Champagne, Lorraine and Valance, and in the 80-strong third.

French supermarket group SAPAC. In Germany, it has terminals in the Schmidt supermarket group, and in Italy is represented in three out of five of the country's major supermarket companies—SGS, Supermarkets Italiani, and Supermercato PAM—with 200 terminals distributed throughout all three. All of these systems are operated by manually keyed-in information; but the latest development is in the PAM supermarket in Venice, where there are UPC shelf labels read by a wand scanner. In America MSI claims to have 17 out of the top 20 supermarket companies using MSI terminals for branch re-ordering and transmission of orders to their data centres. These include A and P, Kroger, Jewel and Grand Union. In this country the UBM Group (builders' merchants) use MSI terminals which are reported to have improved warehouse service levels by 15 per cent. and to have cut branch stocks by a third.

Edward McFadyen  
Editor, Retail and Distribution Management



One of the 48 NCR terminals at one of the checkouts at the Migros store in the Glatt shopping centre at Zurich in Switzerland. The terminals are linked to an NCR in-store mini-computer for price look-up and management information.

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**Financial Times Monday April 17 1978**

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# FINANCIAL TIMES

Monday April 17 1978

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## Economic pact with Ireland expected

BY GILES MERRITT

THE BRITISH and Irish Governments will announce soon an economic co-operation pact that should have far-reaching implications for the development of Ulster.

A report that sets out areas for joint action, notably between Northern Ireland and the South, has been submitted for the approval of Mr. Callaghan and Mr. Jack Lynch, the Irish Prime Minister. In spite of the present deterioration in Anglo-Irish relations due to disagreement over Ulster, it is expected that the document will be announced jointly next month.

The report may be unveiled in Dublin if Mr. Roy Mason, the Ulster Secretary, visits the Irish capital next month for a meeting with Mr. Michael O'Kennedy, the Irish Foreign Minister, that was postponed just before Easter.

Officials in both Dublin and Belfast are concerned to play down the implications of the report for fear that it will arouse political sensitivities, particularly among Ulster Unionists.

But they say that acceptance of its proposals by both governments would give a green light to a wide variety of cross-border projects and joint ventures.

The Anglo-Irish study was initiated by Mr. Callaghan and Mr. Lynch when they met in London last September, and its findings are divided into four broad categories:

### Harmonisation

1—North-South co-operation on industrial projects and programmes for increasing cross-border trade. Only about 4 per cent of the Republic imports come from Ulster.

2—Energy co-operation under which Ulster's anticipated electricity surplus in the 1980s could be sold to the South, or perhaps exchanged against the Republic's natural gas from the extensive Kinsale Head field.

In addition to the re-opening of the 300 MW interconnector between Ulster and the Republic damaged by the IRA, the report considers a cross-channel inter-connection between Ireland and Britain.

3—Transport and infrastructure co-operation, which would iron out anomalies created by unrelated planning on the two sides of the border and would create more efficient North-South road and rail links.

In the past, the emphasis in Dublin and Belfast has been more on links with Britain.

4—Customs harmonisation and the streamlining of procedures that at present add an average 12 hours to the 3-4 hour Dublin freight trip.

Only last week the Irish Grain Board said that this "administrative muddle" was seriously jeopardising the Republic's grain exports to Ulster, worth £10m a year.

### Few benefits

With the exception of customs procedures, which it is expected can be reorganised before the end of this year, the Anglo-Irish pact will yield few immediate benefits.

Instead, it will initiate a number of feasibility studies into major cross-border projects that would help broaden Ulster's industrial base.

The chief political stumbling block to this co-operation however, is Northern Ireland and British suspicion that Mr. Lynch's anti-partitionist Fianna Fail Government sees it as a step towards federal reunification of Ireland.

Background, Page 5

## Stewards try again to rescue Speke

BY NICK GARNETT, LABOUR STAFF

A CO-ORDINATED national programme involving dockers, road hauliers and other groups, is to be urged against British Leyland's plan to shut its car assembly plant at Speke on May 26.

Transport and General Workers' shop stewards at the plant will be urging the action on union officers. After the overwhelming vote by Speke workers at the week-end against both closure and the redundancy terms offered, shop stewards will redouble attempts to force British Leyland at least to introduce new work into both the car assembly and body-building plants at Speke.

The executive of the national shop stewards committee in British Leyland is also meeting in the next fortnight to discuss the position.

The committee has agreed that no work on the TR7 will be transferred from Speke to other plants unless arrangements made on Merseyside satisfy the workers. Mr. Derek Robinson, the committee's chairman, said yesterday that serious consideration would be given to any appeal by Speke shop stewards for a series of strikes at British Leyland.

Mr. Terry Duffy, the Amalgamated Union of Engineering Workers' executive member for the motor industry, said that the Confederation of Shipbuilding and Engineering Unions was almost certain to give the Speke workers official backing after the week-end vote.

The confederation last week deferred its decision on Speke until April 24. Mr. Grenville Hawley, national

automotive secretary for the TGWU, said that further talks with British Leyland were essential. National union officials will again press the company to postpone the closure date and examine more closely the possibility of bringing new work into Speke from the company's other divisions, including bus and truck, and special products.

Further discussions are also likely on the size of redundancy payments on which British Leyland has indicated it is prepared to negotiate.

Some Speke shop stewards said yesterday that the size of the payments had had some effect on the week-end vote against compulsory redundancies. But the dominant factor had been a strong desire to resist any loss of jobs at Speke.

## Labour confidence grows over first Budget vote

BY PHILIP RAWSTORNE

THE GOVERNMENT, bolstered by growing signs of a revival in Labour's electoral support, is confident of winning the first Commons vote on the Budget to-night by a comfortable majority and surviving later attacks on its strategy.

Liberal MPs, in spite of their demands for greater tax cuts, will support the Government in resisting the Tory challenge to the general Budget resolution. Ministers also seem likely to avoid the threat of some political embarrassment by blocking a Labour Left-wing move to vote against tax relief for the higher paid.

Mr. George Thomas, the Speaker, is expected to reject a request from about 30 Tribune Group MPs for separate votes on the higher tax concessions. Mr. Ron Thomas, Labour MP for Bristol, said yesterday that if they were denied a vote to-night, the Left-wing group would renew the attack during the Commons debates on the Finance Bill.

"If there is money available, it should go to the lower paid and the average paid workers not those of £25,000 a year," he said.

Ministers, however, view the

### Anxious

The tactics were also given the unanimous backing of the Welsh Liberal Party's conference at Aberystwyth, where Mr. Emylyn Hosson told delegates that the Lib-Lab pact was clearly drawing to an end.

But in spite of the Liberal assertions, the odds are that the party's MPs—several of whom are anxious to end both the Scottish and Welsh devolution Bills on the Statute Book—will stop short of forcing the Government's election hand by overturning the Budget strategy.

Mr. Jeremy Thorpe, the former Liberal leader, hinted at the week-end that top tax rates, where further relief would be less costly, would be the party's prime target.

Ministers also believe that the prospects of a Tory-Liberal alliance inflicting severe damage on the Budget strategy may be reduced by their warning that lost revenue would be regained from increases in employers' National Insurance contributions.

Government resistance has undoubtedly been stiffened by the post-Budget opinion polls, which not only show that the Budget has been generally popular, but that Labour's electoral revival appears to be gathering strength.

In spite of the stock market reaction, a poll in the Sunday Times conducted by Market and Opinion Research International, showed that 69 per cent thought the Budget was good for Britain and 68 per cent said it had been good for them personally.

According to the poll, the Government was running only 2 per cent behind the Conservatives and there was a growing feeling that the country's economy was improving.

## Union growth main achievement of last four years, says Benn

BY PHILIP BASSETT, LABOUR STAFF

TRADE UNION growth was the most important achievement of the past four years, Mr. Tony Benn, Energy Secretary, said yesterday.

Mr. Benn told the tenth annual conference of the Institute for Workers' Control at Sheffield that relationship between the Government and trade unions was totally transformed from the relationship in the 1964-70 Labour Government.

People were seeing the need for union organisation at income levels of £10,000 to £20,000—unthinkable 15 years ago.

No substitute existed for strong trade unionism in dealing with plant closures. Trade unionism was an absolutely essential part of any alternative strategy for workers' control. We must have strong unions, we must recruit for them, and we must support them.

The slump of the 1930s was ended only by rearming for war, and the Socialist chase for public investment, public accountability

## Egg surplus warning

BY CHRISTOPHER PARKES

POULTRY FARMERS will find themselves in economic difficulties next winter if they carry on buying in young chicks at the present rate, the Eggs Authority, said yesterday. Consumers on the other hand, could benefit from a glut of cheap eggs.

The authority, the poultry industry's advisory body, issued its second warning of the year to egg producers, who appear to have ignored the first, given in February.

and public ownership was the only alternative to rearmament. Mr. Benn was strongly in favour of workers' control in the mining industry, which was not accepted in the National Union of Mineworkers as a whole. Mr. Arthur Skargill, Yorkshire

Long term future, Page 6

## Restraint by Third World shipyards sought

By Ian Hargreaves, Shipping Correspondent

EASIER CREDIT for ship exports and a plan for some co-operation from developing countries in the face of the world shipbuilding slump will be considered in Paris this week.

A meeting starting to-day of the Organisation for Economic Co-operation and Development's working party on shipbuilding will also give European members an opportunity to question Japan about its stated plans to cut the capacity of its shipyards.

The plan for easier credit on ship sales suggests that shipyards should be allowed similar OECD credit terms to those available to aircraft manufacturers—35 per cent credit repayable over 10 years instead of only 70 per cent over seven years. It would have widespread support among shipyards.

Shipowners would stand to gain from any easing of credit, but would have reservations about providing stimulus to demand at a time when there is gross and long-term overcapacity in virtually every sector of shipping.

There is more agreement on the need to involve so-called Third World countries in the OECD's strategy on shipbuilding, but little common ground so far on how this should be achieved.

### South Korea

The OECD countries fear that unless yards in developing nations can be persuaded to curtail their expansion plans and increasingly aggressive marketing, any reduction of facilities in the West and Japan would simply be exploited by third countries.

Countries outside the West and Japan accounted for 21 per cent of new orders last year. South Korea, the latest threat, came second behind Japan with almost 6 per cent of the total according to recent Lloyd's Register figures.

A report last week by London consultants H. P. Dreyer put the OECD yards' average orderbook at a mere 14 months, against Third World countries' 3.8 years.

The Japanese, however, are more chary than the Europeans about any blunt OECD approach to third countries, with whom Japan is keen to foster diplomatic and trading links.

### European move

Among measures to be discussed by the working party this week are an attempt to get third countries to adopt OECD export credit guidelines on ships, and possibly a move to gain acceptance for the organisation's rules for State aid to shipbuilding.

There has not been a full meeting of the working party since the Shipbuilders' Association of Japan announced in January that its members would cut their yards' capacity by up to half by the end of next year. If Government aid was available to cover the transition costs.

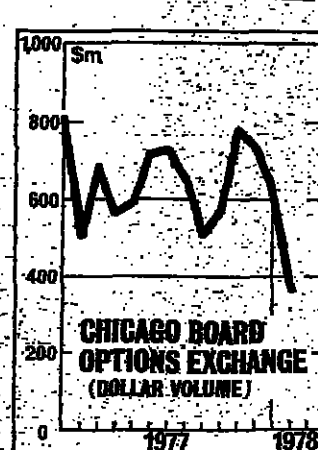
European delegates will be seeking to establish the permanence of the proposed cuts and will in turn be called upon to demonstrate their own progress in reducing capacity.

Although many European countries have announced scaling down programmes of between 30 and 50 per cent, few have actually succeeded in implementing them.

## THE LEX COLUMN

# The countdown for London options

This Friday brings the first day of trading on the new London market in traded options. Its supporters do not expect that in the early stages it will be anything more than a modest success, and its opponents say that it will be a humiliating flop. But until two questions have been resolved, the likely outcome is pure speculation. Will the dealing system in London—which is unlike that of any other established options exchange—lead to a fair and efficient market? And will the public participate?



Options markets, unless carefully controlled, lend themselves to manipulation. An option represents the right to buy a share at some future date, and share at some future date, and would be a recipe for disaster since whatever happens they are obliged to go on making a market. They can be long of a stock at one moment and short the next—and unless they could continuously monitor the two books (which they can't), they would be horribly exposed in their stance in the options market was geared to what might be only a momentary position in the underlying stock.

Moreover it ought to be easier to detect hanky panky in a centralised market like London than it is in the U.S. where shares and options are dealt in all over the place. No cowboys will be able to walk in from the streets, since the floor is confined to Stock Exchange members. For every winner in options there is also a loser and no-one is going to tolerate fictitious signalling from one pitch to another, or other such abuses. The occasional attempt may be successful, but in a market which is based on the continued willingness of its members to deal with each other, the risks of exposure would be great.

In addition to being fair an efficient market also needs to have depth and liquidity, and this is going to be London's biggest problem. Options are not being created in response to public demand, and remarkably little effort has been made to tell people what they are all about. The market has come into being largely because its supporters were looking for ways of replacing lost equity business, and because a sufficient number of its opponents became scared that London might lose interest in the underlying securities—which, they might be sucked across to the continent by the European Options Exchange.

With some exceptions the run-

ning has been made by middle sized broking houses, which do not have much in the way of gifts or new issue business. The bloods like Cusumano, Rowe and Pittman, or Hoare Greyer have stayed in the background. No one is going to get killed in the rush on Friday. The capital gains tax rules are an enormous hurdle for the private investor. Options are treated as a wasting asset, which means that a buyer can make a loss and still have to pay tax. The seller, too, can be stung if he wants to close out his position.

Last week's tax concessions will help, of course, but options are not for the inactive small investor, and there is no tradition in the U.K. of the layman being an active player on the market. The Stock Exchange, rightly, has gone as far as way to ensure that everyone knows the risks, clients have to give a signed, letter of authority to their brokers, and a formidable document it is too.

Among the institutions, the main trusts for the moment at least are not allowed to deal, and trustees of some other funds are going to require a lot of persuasion. In addition, the current market climate is most unfavourable. Falling share prices have knocked volume in Chicago back sharply this year, and put options are permitted there, which they will not be in London.

Prime requirement

In the SEC's view, active market makers are the prime requirement of a healthy options exchange. The fewer there are, the narrower the market and the wider the spreads, because there is less continuity of prices and the risks are bigger. On a good day in Chicago, there can be a dozen market makers in the IBM crowd. London is going to have to get by with not many more than that to cover the entire options exchange in the early stages.

Brokers and jobbers say they will commit more men if the options market takes off, but this is a real chicken-and-egg argument. As things stand, some of the leading participants in the options market are prepared to admit privately that their chances of being more than a minor distraction are not much better than even. In any event, the market is going to need more than a few months to establish itself.

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## Hint of pay claim moderation

BY RAY PERMAN, SCOTTISH CORRESPONDENT

IT IS BECOMING clear that the Government can expect moderation from the unions in the next crucial pre-election pay round—provided it does not try to secure a formal deal or strict adherence to a new guideline.

Mr. Moss Evans, the new leader of the Transport and General Workers' Union, said yesterday that he wanted a return to normal pay bargaining, unfettered by any norms or percentages.

"But that does not mean unions will not act responsibly. Responsibility is not the monopoly of the Government or of the General Council of the TUC."

Mr. Evans, who will detail his union's position at the Scottish TUC conference in Aberdeen this week, spoke approvingly of the movement in the Budget toward rebalancing the economy, which had been made without any suggestion of a quid pro quo from the Labour movement.

More measures, including selective import controls, would be needed. The transport workers would ask the Government, in its role as an employer, to take a lead in introducing a

35-hour week and early retirement as a means of creating new jobs to reduce unemployment.

"We recognise the importance of making a complete economic recovery, and to do that it is necessary to have a Labour Government."

"If there is to be a General Election this year, the Labour Party will have the maximum support of the TGWU, because we believe that if a Tory Govern-

ment were elected it would be a disaster for Britain.

"It will be part of our campaign to tell our members to bargain freely with their employers."

"It will be up to them to decide whether they are acting responsibly or not, and we are not going to lay down any norms or percentages for them to follow."

Continued from Page 1

## Earnings limit

pected to drop further to around 7 per cent, the rises in earnings this year imply a substantial increase in living standards.

The February index for average earnings, and the March figures for basic wage rates and normal weekly hours, are due to be published on Wednesday. In his Budget speech, Mr. Healey stressed the importance of achieving much lower levels of increase in wage costs during the coming year, to prevent a

significant renewed rise in inflation.

Earnings were still growing faster than in most of the countries with which Britain had to compete, and would be the key to the inflation rate next year. The progress of the economy was also highlighted by today's figures of the volume of retail sales for March. The February results showed a significant recovery, with a sharp rise in the sales of durable goods

## Weather

U.K. TO-DAY GENERALLY DRY and cloudy.

London, Cent. S. England, Midlands

Dry, rather cloudy; sunny intervals. Max. 11C (52F).

S.E. England, E. Anglia

Sunny intervals, isolated showers. Max. 10C (50F).

Channel Is., S.W. England, Wales, I. of Man, N. Ireland

Dry, sunny intervals. Max. 12C (54F).

HOLIDAY RESORTS

Amsterdam N 6 40 Luzern's F 3 41

Albany S 30 68 Madrid S 15 59

Batavia C 26 70 Manchester C 8 46

Barcelona S 12 54 Melbourne C 15 59

Berlin C 22 72 Milan S 14 57

Bombay F 10 50 Montreal S 4 45

Buenos Aires F 3 46 Munich C 8 41

Calcutta F 10 50 New York S 11 52

Cairo S 24 74 Paris C 9 48

Cardiff F 11 52 Perth S 23 73

Chengdu S 23 73 Rome C 13 56

Chicago S 23 73 Rio de J. C 23 73

Columbo F 9 46 Singapore S 23 73

Dublin F 11 51 Stockholm C 7 43

Edinburgh S 10 50 Strasbourg C 6 43

Frankfurt F 11 51 Sydney C 19 58

Glasgow C 9 46 Tehran C 21 70

Helsinki C 9 46 Tel Aviv S 23 73

Hong Kong S 23 73 Tokyo S 23 73

Jaipur S 23 73 Toronto C 8 46

Johannesburg S 23 73 Vienna C 4 39

Labuan S 23 73 Warsaw C 4 39

London S 16 46 Zurich C 4 39

E., N.W., Cent. N., N.E. England, Lakes, Borders, Edinburgh, Dundee, S.W. Scotland, Glasgow

Dry, rather cloudy. Max. 10C (50F).

Aberdeen, Highlands, Moray

Firih, N.E. Scotland

Dry, rather cloudy. Max. 8C (46F).

Argyll, N.W. Scotland

Dry, rather cloudy. Max. 9C (48F).

Orkney, Shetland

Mostly cloudy, rain in places. Max. 7C (45F).

Outlook: Cold and showery.

BUSINESS CENTRES

Alaccio S 15 59 Jersey F 9 45

Algeria F 18 60 Las Palmas S 20 66

Bahia S 10 50 Lima S 15 58

Blackpool C 9 46 Malaga S 13 56

Bordeaux F 18 60 Manila S 23 73

Bombay C 10 50 Mexico C 11 52

Brussels F 18 60 Moscow C 11 52

Canton S 16 41 Nicosia C 11 52

Cardiff F 11 52 Oporto C 14 57

Chengdu S 23 73 Rabat C 19 66

Columbo F 9 46 Salzburg C 11 52

Dublin F 11 51 Shanghai C 14 57

Edinburgh S 10 50 Tangier C 11 52

Frankfurt F 11 51 Tientsin C 11 52

Glasgow C 9 46 Tunis F 18 61

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